

Curriculum Vitae

Klara Nahrstedt

Office Address:

University of Illinois, Urbana-Champaign
Department of Computer Science
3104 Siebel Center
201 North Goodwin Avenue
Urbana, IL 61081
Tel: 217-244-6624
Fax: 217-244-6869
Email: klara@illinois.edu

Citizenship: USA

Education:

A.B., in Mathematics, Department of Mathematics, Humboldt University von Berlin, Berlin, Germany, 1984

M.S., in Numerical Analysis (Diploma), Department of Mathematics, Humboldt University von Berlin, Berlin, Germany, 1985

Ph.D., in Computer Science, Department of Computer and Information Science, University of Pennsylvania, 1995

Positions Held:

1. Assistant Professor, Computer Science Department, University of Illinois at Urbana-Champaign, 9/1995-8/2001
2. Associate Professor, Computer Science Department, University of Illinois at Urbana-Champaign, 9/2001-8/2005
3. Beckman Institute Affiliate, University of Illinois at Urbana-Champaign, 10/1997-Present
4. Coordinated Science Laboratory Affiliate, University of Illinois at Urbana-Champaign, 1997-present
5. Visiting Associate Professor, EECS Department, University of California, Berkeley, 9/2003-12/2003
6. Visiting Associate Professor, ECE Department, Technical University Darmstadt, Darmstadt, Germany, 4/2004-6/2004.
7. Full Professor, Computer Science Department, University of Illinois at Urbana-Champaign, 9/2005 – Present

8. Research Professor, Information Trust Institute, University of Illinois at Urbana-Champaign, 2006 – Present
9. Affiliate Full Professor, ECE Department, University of Illinois at Urbana-Champaign, 2009-Present
10. Visiting Full Professor, ECE Department, Technical University Darmstadt, Germany, 6/2010-12/2010.
11. Visiting KIVA Professor, ECE Department, Technical University Darmstadt, Germany, July 2013, June 2014.
12. Co-Founder and Scientific Advisor, 4D Teleport Startup, Champaign, IL, 2010-2013.
13. Associate Head of Computer Science, University of Illinois at Urbana-Champaign, August 2011-August 2013
14. Acting and Interim Director of Coordinated Science Laboratory, College of Engineering, University of Illinois at Urbana-Champaign, 8/2013 – 2/2015
15. Director of Coordinated Science Laboratory, College of Engineering, University of Illinois at Urbana-Champaign, 2/2015 – present

Other Professional Employment:

9/1985-12/1986 - System Programmer, Computer Center of Ministry for Agriculture, Berlin, Germany

1/1987-12/1989 - Researcher, Institute for Informatik, Academy of Science, Berlin, Germany

8/1990-9/1995 - Research Assistant, Department of Computer and Information Science, University of Pennsylvania, Philadelphia, PA

Awards:

(a) Teaching:

- **Campus Award for Innovative Undergraduate Instruction**, April 2000 (Development of Instructional Animations for Operating System Class, CS323, and Multimedia System Class, CS314) – honorable mentioned.
- **2009 Outstanding Advisors List**, College of Engineering, University of Illinois at Urbana-Champaign (undergraduate students nomination)
- Fall 2012 – **List of Ranked Excellent Teachers** for cs598kn Advanced Topics in Multimedia Systems.
- Fall 2014 - **List of Teachers Ranked as Excellent by Their Students**, for CS538, “Advanced Network Systems”
- Fall 2017, Fall 2018 - **List of “Instructors rated as Excellent by students @ Illinois”**, for cs598kn “Advanced Topics in Multimedia Systems”

(b) Research:

- **Weierstrass Prize**, for Master Thesis on "Runge-Kutta Algorithm for Algebraic-Differential Equations", awarded by the Weierstrass Institute, Berlin, Germany 1985
- **NSF Career Award**, for proposal on "Time-variant QoS management, awarded by NSF, March 1996
- **NASA Space Act Award**, for the work on the novel MPEG encryption algorithm, May 1998
- **Junior Xerox Award**, College award for research achievements, given to junior faculty members, April 1998
- **Gear Award**, Departmental award for research achievements, May 1999
- **Lucent Award** for the work on the "Omni-directional Distributed Visual Tracking System", December 1999
- **IEEE Communications Society Best Tutorial Paper Award** for the paper, "An Overview of Quality of Service Routing for Next-Generation High-Speed Networks: Problems and Solutions" published in the November/December 1998 issue of IEEE Network, Award received in June 1999
- **IEEE Communications Society Leonard G. Abraham Prize Paper Award** for the paper, "A Control-based Middleware Framework for Quality-of-Service Adaptation", published in the September 1999 issue of IEEE Journal Selected Areas in Communications, Award received in June 2000
- **Ralph and Catherine Fisher Professorship**, 2002-2015
- **IEEE Fellow** 2008-
- **University Scholar** 2008-2011
- **Humboldt Fellow Award**, 2009-2011
- **Mark Weiser Best Paper Award** 2011 (for the paper Long Vu, Quang Do, Klara Nahrstedt, "Jyotish: A Novel Framework for Constructing Predictive Model of People Movement from Joint Wifi/Bluetooth Trace", IEEE Percom 2011, Seattle, WA, March 2011)
- **Best Student Paper Award** 2011 at ACM Multimedia 2011 (for the paper Wanmin Wu, Ahsah Arefin, Gregorij Kurillo, Pooja Agarwal, Klara Nahrstedt, Ruzena Bajcsy, "Color-plus-Depth Level-of-Details in 3D Teleimmersive Video:", ACM Multimedia 2011, Scottsdale, AZ, November 2011)
- **IEEE Computer Society Technical Achievement Award** 2012
- **ACM Fellow** 2013
- **Huwei/3D Life Grand Challenge Winner**, for Shannon Chen, Pengye Xia, Klara Nahrstedt, "Activity-Aware Adaptive Compression: A Morphing-Based Frame Synthesis Application in 3DTI", ACM Multimedia 2013, Huawei Multimedia Challenge, Barcelona, Spain, October 2013.
- **2013 IEEE ComSoc MMTC Best Conference Paper Award** (for the paper Shu Shi, Klara Nahrstedt, Roy Campbell, "Distortion over Latency: Novel Metric for Measuring Interactive Performance in Remote Rendering Systems", IEEE ICME 2011, Barcelona, Spain, July 11-15, 2011.)
- Member of **German National Academy of Sciences**, Leopoldina Society, 2014

- **ACM Special Interest Group on Multimedia (SIGMM) Award** for Outstanding Technical Contributions to Multimedia Computing, Communications, and Applications, 2014
- **“10 Women to Know” by SIGMOBILE N2W organization– People’s Choice Award , December 2015.**
- **Best-in-Session Presentation Award 2016**, Chien-Nan (Shannon) Chen, Zhenhuan Gao, Klara Nahrstedt, “F.Live”, IEEE INFOCOM 2016, April 10-15, 2016, San Francisco
- **Best-In-Session Presentation Award 2017**, Haiming Jin, Lu Su, Klara Nahrstedt, “CENTURION: Incentivizing Multi-Requester Mobile Crowd Sensing”, IEEE INFOCOM 2017, Atlanta, GA, May 2017
- **Best Paper Award 2017 for the paper** Phuong Nguyen, Steven Konstanty, Todd Nicholson, Thomas O'Brien, Aaron Schwartz-Duval, Timothy Spila, Klara Nahrstedt, Roy Campbell, Indranil Gupta, Michael Chan, Kenton McHenry and Normand Paquin, “4CeeD: Real-Time Data Acquisition and Analysis Framework for Material-related Cyber-Physical Environments”, IEEE/ACM 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing, Madrid, Spain, May 14-17, 2017
- **Best Student Paper Award 2017 for the paper** Yuan Tian, Suraj Raghuraman, Thiru Annaswamy, Aleksander Borresen, Klara Nahrstedt, Balakrishnan Prabhakaran, “H-TIME: Haptic-enabled Tele-Immersive Musculoskeletal Examination”, ACM Multimedia 2017, Mountain View, CA October 2017
- **2018 Robert Piloty Prize for Outstanding Research, Technical University Darmstadt, Germany**, received February 2019.
- **2019 Tau Beta Pi Daniel C. Drucker Eminent Award**, College of Engineering, University of Illinois at Urbana-Champaign, received April 2019.
- **2019 AAAS (American Association for the Advancement of Science) Fellow**

(c) Public Service:

- **Service Award** for being General Co-Chair of ACM Multimedia 2006, November 2006, Santa Barbara, CA
- **Service Award** for being General Chair of ACM 17th Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV) 2007, June 2007, Urbana, IL
- **Elected Chair of ACM SIG Multimedia**, 7/2007-7/2009 and 7/2009-7/2013
- **Elected Member of the ACM SGB (SIG Governing Board) Executive Committee**, 6/2010-5/2012
- **Service Award** for being General Chair of IEEE Pervasive Computing and Communication (PerCom) 2009, March 2009, Galveston, TX
- **Selected Member of CCC (Community Computing Consortium) – Subcommittee of CRA**, 7/2014-6/2017
- **Selected Member of the Executive Committee of CCC** 7/2015-6/2016
- **Selected to be member of the 2015-2016 CIC Academic Leadership Program (5 members from UIUC are only selected)**

- **Invited to be Member of NSF CISE Advisory Board** – starting December 2019

Taught Courses at UIUC:

- **Multimedia Systems CS414** – senior undergraduate and first year graduate students (designed new course)
- **Advanced Multimedia Systems CS598kn** – PhD graduate course (designed new course)
- **Operating Systems Design CS423** (kernel programming) – senior undergraduate and first year graduate students (revised the course and introduced kernel programming assignments)
- **Distributed Systems Design CS425** – senior undergraduate and first year graduate students (introduced programming assignments on mobile phones)
- **System Programming CS241** (introduction to operating system) – sophomore undergraduate students (started this course with Roy Campbell)
- **Graduate Seminars (CS591kn) on Topics:** Multimedia Security, Tele-immersive Systems, Multimedia Peer-to-Peer Systems, QoS Management in Distributed Systems, Special Topics on Group Communication in Cooperative Spaces, Introduction to Quantum Computing for Computer Scientists and Engineers
- **Graduate Seminar (CS591fsn) – Theoretical Foundations in Systems and Networks**
- **Advanced Networking Systems CS538** – PhD graduate course

Publications:	All	Since 2015
Citations	30770	6240
h-index	84	38
i10-index	349	140

Google Scholar Citation Count: retrieved February 12, 2020

Books Authored or Co-authored:

1. Ralf Steinmetz and Klara Nahrstedt, “Multimedia: Computing, Communications and Applications”, **Prentice Hall**, July 1995.
2. Ralf Steinmetz and Klara Nahrstedt, “Media Coding and Content Processing” (Volume 1), **Prentice Hall** 2002
3. Ralf Steinmetz and Klara Nahrstedt, “Multimedia Systems” , **Springer Verlag**, 2004
4. Ralf Steinmetz and Klara Nahrstedt, “Multimedia Applications” , **Springer Verlag**, 2004
5. Klara Nahrstedt, “QoS in Wireless Networks over Unlicensed Spectrum”, **Morgan&Claypool** Publisher, January 2012.

Books Edited or Co-Edited:

Andrew Campbell, Klara Nahrstedt (Editors), “Building QoS into Distributed Systems”, **Chapman and Hall**, November 1997

Chapters in Books:

1. Klara Nahrstedt, J. Smith, “Service Kernel for Multimedia Endpoints”, **Multimedia Advanced Teleservices and High-Speed Communications Architectures**, Ralf Steinmetz (editor), published by Springer-Verlag, Lecture Notes in Computer Science, LNCS-868, Section I, 1994, pp. 8-22.
2. Klara Nahrstedt, Ralf Steinmetz, “Resource Management in Multimedia Networked Systems” , **Handbook of Multimedia Networking**, James P. Cavanagh (editor), published by Auerbach Publications, Chapter 7.3, 1995, pp. 381- 406.
3. Hao Chu, Klara Nahrstedt, “A Soft Real-Time Scheduling Server in UNIX Operating System”, **Interactive Distributed Multimedia Systems and Telecommunication Services**, Ralf Steinmetz, Lars Wolf (editors), Springer Verlag, Lecture Notes in Computer Science 1209,Section II, 1997, pp. 153-162.
4. Kiwook Kim, Klara Nahrstedt, “QoS Translation and Admission Control for MPEG Video”, **Building QoS into Distributed Systems**, Andrew Campbell, Klara Nahrstedt (editors), Chapman and Hall, 1997, pp. 359-362.
5. Klara Nahrstedt, “Quality of Service Guarantees in Networked Multimedia Systems”, **Handbook on Multimedia Computing**, Borko Fuhr (editor), CRC Press, 1999, pp. 839-875.
6. Baochun Li, Klara Nahrstedt, “QualProbes: Middleware QoS Profiling Services for Configuring Adaptive Applications”, **Distributed Systems Platforms and Open Distributed Processing**, J. Sventek, G. Coulson (editors), Springer Verlag, Lecture Notes in Computer Science 1795, 2000, pp. 256-272.
7. Dongyan Xu, Dao Wichadakul, Klara Nahrstedt, “Resource-Aware Middleware Services for Active and Configurable Distributed Services in Active Middleware Services”, **Active Middleware Services**, Salim Hariri, Craig A. Lee, Cauligi S. Raghavendra (Editors), Kluwer Academic Publisher, pp. 167-176, 2000.
8. Cristian Koliver, Jean-Marie Fraines, Klara Nahrstedt, “Soft Computing for QoS Adaptation”, in **Soft Computing Communications**, Lipo Wang (Editor), Springer Verlag Publisher, December 2002
9. Xiaohui Gu, Klara Nahrstedt, “QoS-aware Service Composition for Large-Scale Peer-to-Peer Networks”, in **Grid Resource Management: State of the Art and Future Trends**, Jan Weglarz, Jarek Nabrzyski, Jennifer Schopf, Maciej Stroinski (Editors), Kluwer Academic Publisher, chapter 24, pp. 395-410, October 2003
10. Klara Nahrstedt, Wanghong Yuan, Yuan Xue, Kai Chen, Samarth Shah, “Quality of Service Support in Wireless Environments”, in **Multimedia Over IP Wired and Wireless Networks** (M. van der Schaar, P. Chou, editors). Elsevier, to appear in 2007
11. Yuan Xue, Yi Cui, Klara Nahrstedt., “Optimal Resource Allocation for Wireless Mesh Networks”, in **Wireless Mesh Networks : Architectures and Protocols**,

- Ekram Hossain, K.K. Leung (Editors), Springer 2007 (ISBN: 978-0-387-68839-8), Chapter 10, 2007
12. Wenbo He, Yuan Xue, Klara Nahrstedt, "Delay Management in Wireless Ad Hoc Networks", in **Handbook of Wireless Ad Hoc and Sensor Networks**, Sudip Misra, Isaac Woungang, Subhas C. Misra (Editors), Springer-Verlag, New York, December 2008.
 13. Klara Nahrstedt, Wenbo He, Ying Huang, " Security for Wireless Ad Hoc Network", in **Handbook of Wireless Ad Hoc and Sensor Networks**, Sudip Misra, Isaac Woungang, Subhas C. Misra (Editors), Springer-Verlag, Springer Verlag New York, December 2008
 14. Rini Kaushik, Klara Nahrstedt, "Energy-Conservation in Large Scale Data-Intensive Hadoop Compute Clusters", Chapter in "**Green IT: Technologies and Applications**", Jae Kim, Myung Lee (editors), Springer Verlag, 1st edition, 2011, XVI.
 15. Zixia Huang, Klara Nahrstedt, Ralf Steinmetz, "Evolution of Temporal Multimedia Synchronization Principles", Editors **Springer Verlag**, 2017
 16. Cheng-Hsin Hsu, Hua-Jun Hong, Tarek Elgamal, Klara Nahrstedt, Nalini Venkatasubramanian, "Multimedia Fog Computing: Minions in the Cloud and Crowd", ACM Books (ACM and Morgan & Claypool Publishers), Editor: Shih-Fu Chang, **Frontiers of Multimedia Research**, Part III Multimedia Communication and Systems, Chapter 10, 2018

Articles in Journals:

1. Klara Nahrstedt, Ralf Steinmetz, "Resource Management in Multimedia Systems", **IEEE Computer**, Vol.28, No.5, May 1995, pp. 52-65.
2. Klara Nahrstedt, Jonathan Smith, "The QoS Broker", **IEEE Multimedia**, Vol.2, No.1, Spring 1995, pp. 53-67.(Translated and reprinted in Nikkei Electronics, (10) 9, no. 646, September 1995, Japanese)
3. Klara Nahrstedt, "End-to-End QoS Guarantees in Networked Multimedia Systems", **ACM Computing Surveys**, Vol.27, No.4, December 1995, pp. 613-616.
4. Klara Nahrstedt, "Multimedia Research in Computer Science Department at UIUC", **IEEE Multimedia Newsletters**, Vol.3, No.1, December 1995, pp. 24-26.
5. Klara Nahrstedt, Jonathan Smith, "Design, Implementation and Experiences with the OMEGA End-point Architecture", **IEEE Journal on Selected Areas in Communication**, Vol.17, No.7, September 1996, pp. 1263-1279.
6. Oguz Angin, Andrew Campbell, Lai-Tee Cheok, Raymond Liao, Koon-Seng Lim, Klara Nahrstedt, "Report on the 5th IFIP International Workshop on Quality of Service (IWQoS'97)", **ACM SIGCOMM Computer Communication Review**, July 1997, pp. 100-108.
7. Klara Nahrstedt, Hao Chu, Srinivas Narayan, "QoS-aware Resource Management for Distributed Multimedia Applications", **Journal on High-Speed Networking**, IOS Press, Vol.8, No.3-4, 1998, pp. 227-255.

8. Lintian Qiao, Klara Nahrstedt, "Comparison of MPEG Encryption Algorithms", **International Journal on Computers & Graphics**, Special Issue: "Data Security in Image Communication and Network", Vol. 22, No. 3, published bimonthly by Permagon Publisher, 1998, pp.437-448.
9. Klara Nahrstedt, "Provision of End-to-End Quality of Service Guarantees", **IEEE Journal of Electrical Engineering**, (Central Europe Division), Vol.49, No.1-2, 1998, pp. 45-46.
10. Chris Hess, Daniel Lin, Klara Nahrstedt, "Design, Implementation and Experiences with an Integrated Multimedia Mailing System", **IEEE Multimedia**, Vol. 5, No. 4, October-December 1998, pp. 13-23.
11. Shigang Chen, Klara Nahrstedt, "An Overview of Quality of Service Routing for the Next Generation High-Speed Networks: Problems and Solutions", **IEEE Network**, Special Issue on Transmission and Distribution of Digital Video, Vol. 12, No. 6, November-December 1998, pp. 64-79. (received IEEE Communication Society Award for Best Tutorial Paper)
12. Lintian Qiao, Klara Nahrstedt, "Watermarking Schemes and Protocols for Protecting Rightful Ownership and Customer's Right", **Journal of Visual Communication and Image Representation**, Academic Press, Vol. 9, No. 3, September 1998, pp. 194-210.
13. Christopher Busch, Klara Nahrstedt, Ioannis Pitas, "Image Security", (Guest Editors Introduction), **IEEE Computer Graphics and Applications**, Special Issue on Multimedia Security, Vol. 19, No. 1, January/February 1999, pp. 16-17.
14. Shigang Chen, Klara Nahrstedt, "Distributed Quality-of-Service Routing in Ad Hoc Networks", **IEEE Journal on Selected Areas in Communication**, Vol. 17, No.8, August 1999, pp. 1-18.
15. Baochun Li, Klara Nahrstedt, "A Control-based Middleware Framework for Quality of Service Adaptation", **IEEE Journal on Selected Areas of Communication**, Vol. 17, No. 9, September 1999, pp. 1632-1650. (received IEEE Communications Society Leonard G. Abraham Prize)
16. C.S. Potter, H. Chu, B. Frey, C. Green, N. Kisseberth, T.J. Madden, K. L. Miller, K. Nahrstedt, J. Pulokas, A. Reilein, D. Tchong, D. Weber and B. Carragher, "Leginon: A System for Fully Automated Acquisition of 1000 Electron Micrographs a Day", **Ultramicroscopy Journal**, Vol.77, published by North-Holland, 1999, pp. 153-161.
17. Sergio Servetto, Kannan Ramchandran, Vinay Vaishampayan, Klara Nahrstedt, "Multiple Description Wavelet Based Image Coding", **IEEE Transactions on Image Processing**, Vol.9, No.5, May 2000, pp. 813-826.
18. Shigang Chen, Klara Nahrstedt, Yuval Shavitt, "A QoS-Aware Multicast Routing Protocol", **IEEE Journal on Selected Areas in Communication**, Vol. 18, No. 12, December 2000, pp. 2580-2592.
19. Fabio Kon, Roy Campbell, Klara Nahrstedt, "Using Dynamic Configuration to Manage a Scalable Multimedia Distributed System", **Computer Communication Journal**, Special Issue on QoS-Sensitive Distributed Network Systems and Applications, Elsevier Science Publisher, Vol. 24, January 2001, pp. 105-123.

20. Alex Chen, Lintian Qiao, Klara Nahrstedt, "Adaptive versus Reservation-based Synchronization Protocols – Analysis and Comparison", **Journal on Multimedia Applications and Tools**, Kluwer Publisher, Vol. 14, No. 4, 2001, pp. 219-257.
21. Sergio Servetto, Klara Nahrstedt, "Broadcast Quality Video over IP", **IEEE Transactions on Multimedia**, Vol. 3, No. 1, March 2001, pp. 162-173.
22. Baochun Li, Bill Kalter, Klara Nahrstedt, "A Hierarchical Adaptive Quality of Service Control Architecture for Configurable Multimedia Applications", **Journal on High-Speed Networking**, IOS Press, Vol. 9, 2001, pp. 153-174.
23. Dongyan Xu, Klara Nahrstedt, Dao Wichadakul, "QoS and Contention-Aware Multi-Resource Reservation," **Cluster Computing Journal**, Kluwer Academic Publisher, Vol. 4, No. 2, April 2001, pp. 95-108.
24. Klara Nahrstedt, Dongyan Xu, Dao Wichadakul, Baochun Li, "QoS-aware Middleware for Ubiquitous and Heterogeneous Environments", **IEEE Communication Magazine**, Vol. 39, No. 11, November 2001, pp. 140-148.
25. Dongyan Xu, Klara Nahrstedt, Duangdao Wichadakul, "MeGaDiP: A Wide Area Media Gateway Discovery Protocol", **Information Science Journal**, Elsevier Science Publisher, Vol. 141, Issue 1-2, March 2002, pp. 37-59.
26. Cristian Koliver, Klara Nahrstedt, Jean-Marie Farines, Joni Da Silva Fraga, Sandra Aparecida Sandri, "Specification, Mapping and Control of QoS Adaptation", **Real-Time Systems Journal**, Kluwer Academic Publishers, Special Issue on Control-Theoretical Approaches to Real-time Computing, Guest editors Tarek Abdelzaher, Lui Sha, Vol. 23, 2002, pp. 143-174.
27. Xiaohui Gu, Klara Nahrstedt, "An XML-based Quality of Service Enabling Language for Web", **Journal of Visual Languages and Computing**, Academic Press, Special Issue on Multimedia Languages for the Web, Vol. 13, No. 1, February 2002, pp. 61-95.
28. Jana Dittman, Petra Wohlmacher, Klara Nahrstedt, "Using Cryptographic and Watermarking Algorithms", **IEEE Multimedia**, October-December 2001, Vol. 8, No. 4, pp. 54-65.
29. Kai Chen, Samarth Shah, Klara Nahrstedt, "Cross-Layer Design for Data Accessibility in Mobile Ad-hoc Networks", **Wireless Personal Communications Journal**, Kluwer Academic Publisher, Special Issue on Multimedia Network Protocols and Enabling Radio Technologies, July 2001, Vol. 21, No. 1, pp. 49-76.
30. Baochun Li, Dongyan Xu, Klara Nahrstedt, "An Integrated Runtime QoS-aware Middleware Framework for Distributed Multimedia Applications", **ACM/Springer Multimedia Systems Journal**, Springer Verlag, Vol. 8, No. 5, 2002
31. King-Shan Lui, Whay Lee, Klara Nahrstedt, "STAR: A Transparent Spanning tree Bridge Protocol with Alternate Routing", **ACM SIGCOMM Computer Communication Review Journal**, Vol. 32, No. 3, July 2002, pp. 33-46.
32. Hao-hua Chu, Lintian Qiao, Klara Nahrstedt, "A Secure Multicast Protocol with Copyright Protection", **ACM SIGCOMM Computer Communication Review Journal**, April 2002, Vol. 32, No. 2, pp. 42-60.
33. Manuel Roman, Chris Hess, Renato Cerquerira, Anand Ranganathan, Roy Campbell, Klara Nahrstedt, "A Middleware Infrastructure for Active Spaces", **IEEE Pervasive Computing Magazine**, October-December 2002, Vol. 1, No. 4, pp. 74-83.

34. Jun Wang, Klara Nahrstedt, "Hop-by-Hop Routing Algorithms for the Premium Class Traffic", **ACM SIGCOMM Computer Communication Review Journal**, November 2002, Volume 32, Issue 5
35. Won Jeon, Klara Nahrstedt, "QoS-aware Middleware Support for Collaborative Streaming and Caching Service", Elsevier Publisher, **Microprocessor and Microsystems Journal**, Special Issue on QoS-enabled Multimedia Provisioning over the Internet, December 2002, pp. 65-72
36. Jingwen Jin, Klara Nahrstedt, "A Distributed Approach QoS Service Multicast with Geometric Location Awareness", **IEEE Distributed System Online**, June 2003, Vol. 4, No. 6 (in Work-in-Progress Section)
37. W. Zhen, K. Nahrstedt, P.A. Chou, A. Ortega, P. Frossard, H.H. Yu, "Introduction to the Special Issue on Streaming Media", **IEEE Transaction on Multimedia**, Vol. 6, No. 2, April 2004, pp. 225-229
38. Yi Cui, Klara Nahrstedt, Dongyan Xu, "Seamless User-level Handoff in Ubiquitous Multimedia Service Delivery", Kluwer **Multimedia Tools and Applications Journal**, Special Issue on Mobile Multimedia and e-Commerce, Kluwer Academic Publishers, Issue 22, 2004, pp. 137—170.
39. King Shan Lui, Klara Nahrstedt, Shigang Chen, " Routing with Topology Aggregation in Bandwidth-Delay Sensitive Networks", **IEEE Transactions on Networking (TON)**, February 2004, Vol. 12, No. 1, pp. 17-29
40. Yi Cui, Baochun Li, Klara Nahrstedt, "oStream: Asynchronous Streaming Multicast in Application-Layer Overlay Networks", **IEEE Journal on Selected Areas of Communication (JSAC)**, January 2004, Volume 22, Number 1, pp. 191-196
41. Bin Yu, Klara Nahrstedt, "Internet-based Interactive HDTV", **ACM/Springer Multimedia Systems Journal**, Springer Verlag, March 2004, Vol. 9, No. 5. , pp. 477-489.
42. Xiaohui Gu, Ira Greenberg, Alan Messer, Dejan Milojicic, Klara Nahrstedt, "Adaptive Offloading Inference for Pervasive Computing", **IEEE Pervasive Computing Magazine**, Vol. 3, No. 3, pp.-66-73, July-September 2004
43. Jingwen Jin, Klara Nahrstedt, "QoS Specification Languages for Distributed Multimedia Applications: A Survey and Taxonomy", **IEEE Multimedia Magazine**, Vol. 11, No. 3, pp. 74-87, July-September 2004
44. Kai Chen, Yuan Xue, Samarth Shah, Klara Nahrstedt, "Understanding Bandwidth-Delay Product in Mobile Ad Hoc Networks", **Computer Communications Journal**, Special Issue on Protocol Engineering for Wired and Wireless Networks, Peter Langendoerfer, Vassilis Tsaoussidis (Guest Editors), Elsevier Sciences Publisher, Vol. 27, No. 10, pp. 923-934, 2004
45. Samarth Shah, Kai Chen, Klara Nahrstedt, "Dynamic Bandwidth Management in Single-hop Ad hoc Wireless Networks", **ACM/Kluwer MONET (Mobile Networks and Applications Journal)**, Special Issue on Algorithmic Solutions for Wireless, Mobile, Ad Hoc and Sensor Networks, vol. 10, No. 1, February 2005.
46. Li Xiao, Jun Wang, King-Shan Lui, Klara Nahrstedt, "Advertising Inter-domain QoS Routing Information", **IEEE Journal on Selected Areas of Communication (JSAC)**, Vol. 22, No. 10, pp. 1949-1964, December 2004
47. Yuan Xue, Klara Nahrstedt, "Providing Fault-Tolerant Ad Hoc Routing Service in Adversarial Environments", **Wireless Personal Communication Journal**, Kluwer

- Academic Publisher, Special Issue on “Security for Next generation Communications”, 2005
48. Yuan Xue, Yi Cui, Klara Nahrstedt, “Maximizing Lifetime for Data Aggregation in Wireless Sensor Networks”, **ACM/Springer Mobile Networks and Applications Journal (MONET)** , Special Issue on "Energy Constraints and Lifetime Performance in Wireless Sensor Networks" , Number 6, Volume 10, December 2005.
 49. Jun Wang, Yaling Yang, Li Xiao, Klara Nahrstedt, “Edge-based Traffic Engineering for OSPF Networks”, **Computer Networks Journal**, Elsevier Sciences Publisher, 48(4), pp. 605-625, 2005
 50. Kai Chen, Klara Nahrstedt, “Limitations of Equation-based Congestion Control in Mobile Ad Hoc Networks”, **International Journal on Wireless and Mobile Computing (IJWMC)**, Special Issue on “Wireless Ad Hoc Networking”, Inderscience Publisher, 2005
 51. Xiaohui Gu, Klara Nahrstedt, “Distributed Multimedia Service Composition with Statistical QoS Assurances”, **IEEE Transactions on Multimedia**, Volume 8, Issue 1, 2006, pp. 141-151
 52. Yuan Xue, Kai Chen, Klara Nahrstedt, “Achieving Proportional Delay Differentiation in Wireless LAN via Cross-Layer Scheduling”, **Wireless Communication and Mobile Computing Journal**, Wiley Publisher, Special Issue on “Emerging WLAN Technologies and Applications”, Vol. 4, No. 8, pp. 849-866, November 2004, Wiley, InterScience Publisher
 53. Yuan Xue, Baochun Li, Klara Nahrstedt, “Optimal Resource Allocation in Wireless Ad Hoc Networks: A price-based Approach”, **IEEE Transactions on Mobile Computing**, Volume 5, Issue 4, July-Aug 2006, pp. 347-364
 54. Kai Chen, Klara Nahrstedt, “Effective Location-Guided Overlay Multicast in Mobile Ad Hoc Networks”, **International Journal of Wireless and Mobile Computing (IJWMC)**, Special Issue on “Group Communication in Ad Hoc Networks”, InterScience Publishers, 2005
 55. Wanghong Yuan, Klara Nahrstedt, Sarita Adve, Robin Kravets, Doug Jones, “GRACE: A Cross-Layer Adaptation Framework for Mobile Multimedia Devices”, **IEEE Transactions on Mobile Computing**, Volume 5, Issue 7, July 2006, re-appeared in IEEE Distributed Systems Online, Volume 7, Number 6, June 2006
 56. Klara Nahrstedt, Bin Yu, Jin Liang, Yi Cui, “Hourglass Multimedia Content and Service Composition Framework for Smart Room Environments”, **Elsevier Pervasive and Mobile Computing Journal** , Vol. 1, No.1, March 2005, pp. 43-75
 57. Vanish Talwar, Bikash Agarwalla, Sujoy Basu, Raj Kumar, Klara Nahrstedt “Resource Allocation for Remote Desktop Sessions in Utility Grids”, **Concurrency and Computation: Practice and Experience Journal**, John Wiley and Sons Publisher, (MGC 2004 Special Issue - Middleware for Grid Computing (MGC) 2004, workshop in conjunction with IFIP/ACM/USENIX Middleware 2004, Toronto, Canada, 2004), p. 667-684, May 2006, Volume 18, Issue 6
 58. Wanghong Yuan, Klara Nahrstedt, “Energy-Efficient CPU Scheduling for Multimedia Applications”, **ACM Transactions on Computer Systems**, Vol. 24, No. 3, August 2006

59. Xiaohui Gu, Klara Nahrstedt, "On Composing Stream Applications in Cooperative Peer-to-Peer Environments", **IEEE Transactions on Parallel and Distributed Systems**, Vol.17, No. 8, August 2006, pp. 824-837
60. Li Xiao, Guanghui He, Klara Nahrstedt, "BGP Session Lifetime Modeling in Congested Networks", **Elsevier Computer Networks Journal**, 2006
61. Yuan Xue, Yi Cui, Klara Nahrstedt, "A Utility-based Distributed Maximum Lifetime Routing Algorithm for Wireless Networks", **IEEE Transactions on Vehicular Technology**, Vol. 55, No. 3, May 2006, pp. 797-805
62. Yi Cui, Yuan Xue, Klara Nahrstedt, "*Optimal Resource Allocation in Overlay Multicast*", **IEEE Transaction on Parallel and Distributed Systems**, Vol. 17, No. 8, August 2006, pp. 808-823
63. Suleyman Uludag, King-Shan Lui, Klara Nahrstedt, "Analysis of Topology Aggregation Techniques for QoS Routing", **ACM Computing Surveys**, , Vol. 39, No. 3, Article 7, pp. 1-31, 2007
64. Jingwen Jin, Klara Nahrstedt, "QoS-aware Service Management for Component-Based Distributed Applications", **ACM Transactions on Internet Technology**, Special Issue on Middleware for Service-Oriented Computing, Vol.8, Issue 3, May 2008, Article No. 14.
65. King-Shan Lui, Suleyman Uludag, Yan Tam, Klara Nahrstedt, "Quality-of-Service Routing with Path Information Aggregation", **Elsevier Computer Networks**, Vol. 51, Issue 12, August 2007, pp. 3574-3594
66. Wenbo He, Ying Huang, Klara Nahrstedt, Whay C. Lee, "*MobiHerald: Alert Propagation in Mobile Ad Hoc Networks*" (extended abstract), **ACM SIG MOBILE Mobile Computing and Communications Review**, Vol. 12, Issue 1, January 2008, pp. 23-25.
67. V. Vardhan, D. G. Sachs, W. Jeon, A. F. Harris, S. V. Adve, D. L. Jones, R. H. Kravets, and K. Nahrstedt, "GRACE-2: Integrating Fine-Grained Application Adaption with Global Adaption for Saving Energy", **International Journal of Embedded Systems (IJES)** on "Low Power Real-Time Embedded Computing", (invited paper), Vol. 4, No. 2, 2009, pp. 152-169.
68. E-Yong Kim, Li Xiao, Klara Nahrstedt, Kunsoo Park, "*Secure Interdomain Routing Registry*", **IEEE Trans. on Information Forensics and Security**, Vol.3, No. 2, June 2008, pp. 304-316
69. Wenbo He, Klara Nahrstedt, Xue Liu, "*End-to-End Delay Control of Multimedia Applications over Multi-hop Wireless Links*", **ACM Transactions on Multimedia Computing, Communications and Applications (TOMCCAP)**, Vol. 5, No. 2, 2009, Article 16.
70. Wenbo He, Ying Huang, Klara Nahrstedt, Whay Lee, "*SMOCK: A Scalable Method of Cryptographic Key Management for Mission-critical Wireless Ad Hoc Networks*", **IEEE Transactions on Information Forensics and Security**, Vol. 4, No. 1, March 2009, pp. 140-150
71. Long Vu, Klara Nahrstedt, Indranil Gupta, "Understanding Overlay Characteristics of a Large-scale Peer-to-Peer IPTV System", **ACM Transactions on Multimedia Computing, Communications and Applications (TOMCCAP)**, Vol. 6, Issue 4, November 2009

72. Zhenyu Yang, Wanmin Wu, Klara Nahrstedt, Gregorij Kurillo and Ruzena Bajcsy, Enabling Multi-party 3D Tele-immersive Environments with ViewCast, **ACM Transactions on Multimedia Computing, Communications, and Applications (TOMCCAP)**, Vol. 6, Issue 2, March 2010.
73. Kyungtae Kan, Won Jeon, Kyung-Joon Parks, Roy Campbell, Klara Nahrstedt, “Cross-layer Quality Assessment of Wireless Video Transmission over Mobile Broadcast Networks”, **IEEE Transactions on Mobile Computing**, October 2010, Vol. 9, No. 10, pp. 1478-1490
74. Long Vu, Klara Nahrstedt, Rahul Malik, Qiyang Wang, “COADA: Leveraging Dynamic Coalition Peer-to-Peer Network for Adaptive Content Download of Cellular Users”, **International Journal of Adaptive, Resilient and Autonomic Systems (IJARAS)**, IGI Publisher, Volume 2, Issue 2, 2011, Special Issue from ADAMUS Workshop 2010.
75. Wenbo He, Xue Liu, Hoang Ngyuen, Klara Nahrstedt, Tarek Abdelzaher, “PDA: Privacy-preserving Data Aggregation in Wireless Sensor Networks“, **IEEE Transactions on Sensor Networks**, Vol. 8, No. 1, June 2011.
76. Klara Nahrstedt, Zhenyu Yang, Wanmin Wu, Ahsan Arefin, Raoul Rivas, Zixia Huang, “Quality and Resource Management for Distributed Interactive Multimedia Environments”, **International Journal of Multimedia Tools and Applications (MTAP)**, Springer, Guest Editors Ramesh Jain, Alberto Del Bimbo, Tat-Seng Chua, Borko Fuhr, Special Issue on “Survey Papers in Multimedia by World Experts”, Springer Netherlands, vol. 51, 2011
77. Klara Nahrstedt, Zhenyu. Yang, Wanmin Wu, Ahsan Arefin, Raol Rivas, “ Session Management in 3D Tele-immersive Systems”, **International Journal of Multimedia Tools and Applications (MTAP)**, Springer , Guest Editors Ramesh Jain, Alberto Del Bimbo, Tat-Seng Chua, Borko Fuhr, Special Issue on “Hot Topics in Multimedia” , Springer Netherlands, vol. 51, 2011
78. Ram Vasudevan, Gregorij Kurillo, Edgar Lobaton, Ruzena Bajcsy, Klara Nahrstedt, “High Quality Visualization for Geographically Distributed 3D Teleimmersive Applications”, **IEEE Transactions on Multimedia**, **13(3): 573-584 (2011)**
79. Long Vu, Quang Do, Klara Nahrstedt, “Jyotish: Constructive Approach for Context Predictions of People Movement from Joint WiDi/Bluetooth Trace”, **Elsevier Pervasive and Mobile Computing Journal**, Vol. 7, No. 6, December 2011, pp. 690-704, <http://dx.doi.org/10.1016/j.pmcj.2011.07.004>
80. Wanmin Wu, Ahsah Arefin, Gregorij Kurillo, Pooja Agarwal, Klara Nahrstedt, Ruzena Bajcsy, “CZLoD: A Psychophysical Approach for Real-Time Processing of 3D Tele-immersive Video”, **ACM Transactions on Multimedia Computing, Communications and Applications (TOMCCAP)**, Volume 8, Issue 3s, September 2012
81. Shu Shi, Klara Nahrstedt, Roy Campbell“ A Real-Time Remote Rendering System for Interactive Mobile Graphics”, **ACM Transactions on Multimedia Computing, Communications and Applications (TOMCCAP)**, Vol. 8, Issue 3s, September 2012
82. Md Ahsan Arefin, Zixia Huang, Raoul Rivas, Shu Shi, Wanmin Wu, Pengye Xia, Klara Nahrstedt, Gregorij Kurillo, Ruzena Bajcsy, “ Classification and Analysis of

- 3D Teleimmersive Activities “, **IEEE Multimedia Magazine**, Volume 20, Issue 1, January-March 2013, pp. 38-48, **Digital Object Identifier** :[10.1109/MMUL.2012.59](https://doi.org/10.1109/MMUL.2012.59)
83. Laura Galluccio, Klara Nahrstedt, Violet R. Syrotiuk, “Guest editorial for special issue on cross-layer design in ad hoc and sensor networks”, **Ad Hoc Networks (ADHOC)** 11(2): 611-613 (2013).
84. Zixia Huang, Klara Nahrstedt, Ralf Steinmetz, “Evolution of temporal multimedia synchronization principles: A historical viewpoint“, **ACM TOMCCAP**, Volume 9, Issue 1s, October 2013, sponsored by ACM SIGMM, Special Issue on the 20th Anniversary of ACM International Conference on Multimedia.
85. Jon Crowcroft, Markus Fidler, Klara Nahrstedt, Ralf Steinmetz, “Is SDN the de-constraining constraint of the future Internet?”, **ACM SIGCOMM Computer Communication Review**, 43(5), 13-18, Publication Date 2013/11/4.
86. Ahsan Arefin, Raoul Rivas, Klara Nahrstedt, “OSM: Prioritized evolutionary QoS optimization for interactive 3D teleimmersion”, **ACM Transactions on Multimedia Computing, Communications and Applications**, Vol. 10, Issue 1s, Pages 12, Publication date 2014/1/1.
87. Suleyman Uludag, King-Shan Lui, Wenyu Ren, Klara Nahrstedt,, “Secure and Scalable Data Collection with Time Minimization in the Smart Grid”, **IEEE Transactions on Smart Grid**, 7(1), January 2016, , DOI: [10.1109/TSG.2015.2404534](https://doi.org/10.1109/TSG.2015.2404534)
88. Long Vu, Phuong Ngyuen, Klara Nahrstedt, Bjorn Richerzahn, “Characterizing and Modeling People Movement from Mobile Phone Sensing Traces Pervasive and Mobile Computing”, accepted to **Elsevier Pervasive and Mobile Computing Journal**, December 2014.
89. Shannon Chen, Zhenhuan Gao, Klara Nahrstedt, Indranil Gupta, “3DTI Amphitheater: Towards 3DTI Broadcasting”, **ACM Transactions on Multimedia (TOMM)**, Vol.11, No.2s, Article 47, February 2015
90. Hongyang Li, Gyorgy Dan, Klara Nahrstedt, “Portunes+: privacy preserving fast authentication for dynamic electric vehicle charging”, **IEEE Transactions on Smart Grid**, February 2016, Volume: PP, Issue 99; DOI: [10.1109/TSG.2016.2522379](https://doi.org/10.1109/TSG.2016.2522379)
91. Tuo Yu, Haiming Jin, Wai-Tian Tan, Klara Nahrstedt, “SKEPRID: Pose and Illumination Change-Resistant Skeleton-Based Person Re-Identification”, **ACM Transactions on Multimedia Computing, Communications and Applications (TOMM)**, 14(4): 1-24, October 2018, DOI: [10.1145/3243217](https://doi.org/10.1145/3243217).
92. Haiming, Jin, Lu Su, Houping X, Klara Nahrstedt, “Incentive Mechanism for Privacy-Aware Data Aggregation in Mobile Crowd Sensing Systems”, **ACM/IEEE Transactions on Networking**, Volume 26, Issue 5, October 2018, DOI: [10.1109/TNET.2018.2840098](https://doi.org/10.1109/TNET.2018.2840098)
93. Haiming Jin, Lu Su, Danyang Chen, Hongpeng Guo, Klara Nahrstedt, Jinhui Xu, “Thanos: Incentive Mechanism with Quality Awareness for Mobile Crowd Sensing”, **IEEE Transactions on Mobile Computing**, PP(99):1-1, August 2018, DOI: [10.1109/TMC.2018.2868106](https://doi.org/10.1109/TMC.2018.2868106)
94. Tuo Yu, Haiming Jin and Klara Nahrstedt, “ShoesLoc: In-Shoe Force Sensor-Based Indoor Walking Path Tracking,” **ACM PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies**, vol. 3(1), 2019, also presented at UBIKOM 2019, London, September 2019.

95. Tuo Yu, Klara Nahrstedt, "ShoesHacker: Indoor Corridor Map and User Location Leakage Through Force Sensors in Smart Shoes", **ACM PACM on Interactive, Mobile, Indoor Walking Path tracking (IMWUT 2019)**, also presented at UBICOM 2019, London, September 2019.
96. Tuo Yu, Haiming Jin, Klara Nahrstedt, "Mobile Devices based Eavesdropping of Handwriting", **IEEE Transactions on Mobile Computing**, 2019, accepted
97. Mike Zink, Ramesh Sitaraman, Klara Nahrstedt, "Scalable 360° Video Stream Delivery: Challenges, Solutions and Opportunities", **Proceedings of the IEEE**, Volume: 107, Issue: 4, April 2019, DOI: [10.1109/JPROC.2019.2894817](https://doi.org/10.1109/JPROC.2019.2894817).

Articles in Conference Proceedings:

1. Klara Nahrstedt, Jonathan Smith, "*An Integrated Multimedia Architecture for High-Speed Networks*", **IEEE Multimedia 92 Conference**, Monterey, CA, Apr. 1992, pp. 70-79. A brief "extended abstract" of this paper was published in **ACM Computer Communication Review**, June 1992, pp. 25-26.
2. Klara Nahrstedt, Jonathan Smith, "*An Application-Driven Approach to Multimedia Networks*", **18th IEEE Conference on Local Computer Networks (LCN)**, Minneapolis, MN, Sept. 1993, pp. 361-368.
3. Klara Nahrstedt, Jonathan Smith, "*New Algorithms for Admission Control and Scheduling to support Multimedia Feedback Remote Control Applications*", **IEEE International Conference on Multimedia Computing and Systems (ICMCS)**, Hiroshima, Japan, Jun. 1996, pp. 532-539
4. Ian R. Philip, Klara Nahrstedt, Jane W-S Liu, "*Scheduling and Buffer Management for Soft-Real-Time VBR Traffic in Packed Switched Networks*", **21st IEEE Conf. on Local Computer Networks (LCN)**, Minneapolis, MN, Oct. 1996, pp. 143-15
5. Lintian Qiao, Klara Nahrstedt, "*Lip Synchronization within an Adaptive VOD Systems*", **SPIE Electronic Imaging - Multimedia Computing and Networking Conf. (MMCN)**, San Jose, CA, Feb. 1997, pp. 170-181.
6. Klara Nahrstedt, "*Experiences with QoS Brokerage and Enforcement in Distributed Multimedia Applications*", **2nd International Conference on Multimedia Information Systems**, , Chicago, IL, Apr. 1997, pp. 200-207.
7. Klara Nahrstedt, "*Multimedia Systems Design: Teaching Students How to Design and Build Multimedia Systems*", **AACE ED-MEDIA & ED-TELECOM '97**, Calgary, Canada, Jun. 1997, pp. 1728-1733.
8. Dragos Manolesu, Klara Nahrstedt, "*Dynamic Link Management Framework for Hypermedia Document Architecture*", **IEEE International Conference on Multimedia Computing and Systems (ICMCS)**, Ottawa, Canada, Jun. 1997, pp. 549-556
9. Lintian Qiao, Klara Nahrstedt, "*A New Algorithm for MPEG Video Encryption*", **International Conference on Imaging Science, Systems, and Technology**, Las Vegas, NV, Jun. 1997, pp. 21-29.
10. Sergio Servetto, Kannan Ramchandran, Klara Nahrstedt, and Antonio Ortega, "*Optimal Segmentation of a VBR Source for its Parallel Transmission over Multiple*

- ATM Connections*", **IEEE International Conference on Image Processing (ICIP)**, Santa Barbara, CA, Oct. 1997, Vol. 2, pp. 5-8.
11. Nalini Venkatasubramanian, Klara Nahrstedt, "An Integrated Metric for Video QoS", **ACM Multimedia**, Nov. 1997, Seattle, WA, pp. 371-381.
 12. Lintian Qiao, Klara Nahrstedt, Ivan Tam, "Is MPEG Encryption Using Random Lists instead of Zig Zag Order Secure?", **IEEE International Symposium on Consumer Electronics**, Singapore, Dec. 1997, pp. 226-229.
 13. Alex Chen, Klara Nahrstedt "QoS-aware Traffic Shaper for 100VG-Any LAN", **IEEE International Conference on Communications (ICC)**, Atlanta, GA, Jun. 1998
 14. Shigang Chen, Klara Nahrstedt, "On Finding an Optimal Route", **IEEE International Conference on Communications (ICC)**, Atlanta, GA, Jun. 1998, pp. 874-879.
 15. Nancy Tran, Klara Nahrstedt, "Active Adaptation by Program Delegation in VOD", **IEEE International Conference on Multimedia Computing and Systems (ICMCS)**, Austin, TX, Jun. 1998, pp. 96-107
 16. Lintian Qiao, Klara Nahrstedt, "Watermarking Methods for MPEG Encoded Video: Towards Resolving Rightful Ownership", **IEEE International Conference on Multimedia Computing and Systems (ICMCS)**, Austin, TX, Jun. 1998, pp. 276-286
 17. Shigang Chen, Klara Nahrstedt, "Maxmin Fair Routing in Connection-Oriented Networks", **Euro-Parallel and Distributed Systems '98, Vienna, Austria**, Jul. 1998, pp. 163-168.
 18. Klara Nahrstedt, H. Chu, C. Lin, C. S. Potter, N. Kisseberth, B. Carragher, B. J. Frey, Carla L. Miller, R. Josephs, "Distributed QoS-Aware High-Performance Environment for Support of Automated TE (demonstration)", **7th IEEE Int'l Symp. on High Performance Distributed Computing (HPDC)**, Chicago, IL, Jul. 1998.
 19. John Lin, Hao Chu, Klara Nahrstedt, "A Soft-Real-Time Scheduler in the Windows NT Environment", **2nd USENIX Windows NT Symposium**, Seattle, WA, Aug. 1998, pp. 149-156
 20. S. Servetto, Kannan Ramchandran, V Vaishampayan, Klara Nahrstedt, "Multiple Description Wavelet Based Image Coding", **IEEE International Conference on Image Processing (ICIP)**, Oct. 1998, vol. I out of III, pp. 659-663.
 21. Shigang Chen, Klara Nahrstedt, "Distributed Quality-of-Service Routing in High-Speed Networks Based on Selective Probing", **23rd Annual Conference on Local Computer Networks (LCN)**, Boston, MA, Oct. 1998
 22. Shigang Chen, Klara Nahrstedt, "Distributed Routing with Imprecise State Information", **IEEE Seventh International Conference on Computer Communications and Networks (ICCCN)**, Lafayette, LA, Oct. 1998, pp. 614-621.
 23. Lintian Qiao, Klara Nahrstedt, "Non-Invertible Watermarking Scheme for MPEG Audio", **SPIE Multimedia Security Conference**, San Jose, CA, Jan. 1999, pp.194-202.
 24. Hao Chu, Lintian Qiao, Klara Nahrstedt, "A Secure Multicast Protocol with copyright Protection", **SPIE Multimedia Security Conference**, San Jose, CA, Jan. 1999, pp.460-471.

25. Hao Hua Chu, Klara Nahrstedt, "*CPU Service Classes for Multimedia Applications*", **IEEE International Conference on Multimedia and Computing Systems (ICMCS)**, Florence, Italy, Jun. 1999, pp. 296-301.
26. Shigang Chen, Klara Nahrstedt, "*Hierarchical Scheduling for Multiple Classes of Applications in Connection-Oriented Integrated-Service Networks*", **IEEE International Conference on Multimedia and Computing Systems (ICMCS)**, Florence, Italy, Jun. 1999, pp. 153-158.
27. Baochun Li, Klara Nahrstedt, "*Dynamic Reconfiguration for Complex Multimedia Applications*", **IEEE International Conference on Multimedia and Computing Systems (ICMCS)**, Florence, Italy, Jun. 1999, pp. 165-170.
28. Sergio Servetto, Klara Nahrstedt, "*Video Streaming over the Public Internet: Multiple Description Codes and Adaptive Transport Protocols*", **IEEE International Conference on Image Processing (ICIP)**, Japan, Oct. 1999
29. Baochun Li, Won Jeon, Bill Kalter, Klara Nahrstedt, Jun Seo, "*Adaptive Middleware Architecture for a Distributed Omni-directional Visual Tracking System*", **SPIE/ACM Electronic Imaging - Multimedia Computing and Networking (MMCN)**, San Jose, January 24-26, 2000, pp. 101-112.
30. Dongyan Xu, Klara Nahrstedt, Duangdao Wichadakul, "*MeGaDiP: A Wide Area Media Gateway Discovery Protocol*", **IEEE International Performance, Computing, and Communications Conference (IPCCC)**, Phoenix, Arizona, February 2000, pp. 257-263.
31. Shigang Chen, Klara Nahrstedt, Yuval Shavitt, "*A QoS-Aware Multicast Routing Protocol*", **IEEE INFOCOM'2000**, Israel, March 2000, pp. 1594-1603
32. Dongyan Xu, Dao Wichadakul, Klara Nahrstedt, "*Multimedia Service Configuration and Reservation in Heterogeneous Environments*", **IEEE International Conference on Distributed Computing Systems(ICDCS)**, April 2000, Taiwan, pp. 512-519
33. Baochun Li, Klara Nahrstedt, "*QualProbes: Middleware QoS Profiling Services for Configuring Adaptive Applications*" , **IFIP/ACM International Conference on Distributed Systems Platforms and Open Distributed Processing (Middleware 2000)**, New York (Hudson River Valley), April 2000, pp. 256-272
34. Yuxin Zhou, Klara Nahrstedt, "*OPNET Simulations of InfServ/ATM Edge Devices*", **Networks and Multimedia Track of the 2000 Applied Telecommunication Symposium**, Washington, DC April 2000, pp. 238-243.
35. William Kalter, Baochun Li, Won Jeon, Klara Nahrstedt, Jun-Hyuk Seo, "*A Gateway-Assisted Approach Toward QoS Adaptations*", **IEEE International Conference on Multimedia and Expo (ICME)**, New York, NY, July 2000, pp. 855-858.
36. Kihun Kim, Klara Nahrstedt, "*A Resource Broker Model with Integrated Reservation Scheme*", **IEEE International Conference on Multimedia and Expo(ICME)**, New York, NY July 2000, pp. 859-862.
37. Dongyan Xu, Duangdao Wichadakul, Klara Nahrstedt, "*Resource-Aware Configuration of Ubiquitous Multimedia Services*", **IEEE International Conference on Multimedia and Expo (ICME)**, New York, NY, July 2000, pp. 851-854.
38. Fabio Kon, Roy Campbell, Dennis Mickunas, Klara Nahrstedt, "*2K: Distributed Component-based System*", **IEEE High Performance Distributed Computing Conference (HPDC)**, Pittsburgh, PA, August 2000, pp. 201-208.

39. Dongyan Xu, Dao Wichadakul, Klara Nahrstedt, "*QoS and Contention-Aware Multi-Resource Reservation*", **IEEE High Performance Distributed Computing Conference (HPDC)**, Pittsburgh, PA, August 2000, pp. 3-10.
40. Jun Wang, Klara Nahrstedt, "*Design and Implementation of Diffserv Routers in OPNET*", **OPNETWORK '00**, Washington, August 2000/Electronic Proceedings.
41. King-Shan Lui, Klara Nahrstedt, "*Topology Aggregation and Routing in Bandwidth-Delay Sensitive Networks*", **IEEE GLOBECOM '00**, San Francisco, CA, November 2000, pp. 410-414.
42. King-Shan Lui, Klara Nahrstedt, Shigang Chen, "*Hierarchical QoS Routing in Delay-Bandwidth Sensitive Networks*", **IEEE Local Computer Networks (LCN)**, Tampa, FL, November 2000, pp. 579-588.
43. Dongyan Xu, Klara Nahrstedt, "*QoS-Aware Discovery of Wide-Area Distributed Services*," **CCGrid '2001**, Brisbane, Australia, May 2001, pp. 92-99.
44. Jun Wang, Klara Nahrstedt, "*A Solution to the NKR Problem in End-to-End Bandwidth Reservation*," **IEEE International Conference on Communication (ICC)**, Helsinki, Finland, June 2001(electronic proceedings).
45. John Qian, Susan Hinrichs, Klara Nahrstedt, "*ACLA: A Framework for Access Control List Analysis and Optimization*," **IFIP International conference in Communication and Multimedia Security**, Darmstadt, Germany, May 2001.
46. Baochun Li, Klara Nahrstedt, "*Impact of Control Theory on QoS Adaptation in Distributed Middleware Systems*," **American Control Conference**, Arlington, VA, June 2001.
47. Arun Viswanathan, Klara Nahrstedt, Dongyan Xu, Duangdao Wichadakul, "*Impact of CPU Reservation on End-to-End Media Data Transmission*", **IEEE International Performance, Computing and Communication Conference (IPCCC)**, Phoenix AZ, April 2001, pp. 354-361.
48. Wanghong Yuan, Klara Nahrstedt, Kihun Kim, "*R-EDF: A Reservation-Based EDF Scheduling Algorithm for Multiple Multimedia Task Classes*", **IEEE Real-Time Applications and Systems (RTAS)**, Taipei, Taiwan, May 2001
49. Xiaohui Gu, Klara Nahrstedt, "*Visual Programming Environment for Ubiquitous Multimedia Services*", **IEEE International Conference on Multimedia and Expo (ICME)**, Tokyo, Japan, August 2001 (electronic proceedings, link: Session FP2:QoSII, pp. 13-16).
50. Yi Cui, Klara Nahrstedt, "*SMART: A Scalable Middleware Solution for Ubiquitous Multimedia Service Delivery*", **IEEE International Conference on Multimedia and Expo (ICME)**, Tokyo, Japan, August 2001 (electronic proceedings, link: Session SP7: Multimedia TechnologiesVII, pp. 17-20).
51. Vanish Talwar, Suman Nath, Klara Nahrstedt, "*RSVP-SQoS: A Secure RSVP Protocol*", **IEEE International Conference on Multimedia and Expo (ICME)**, Tokyo, Japan, August 2001 (electronic proceedings, link: FP2:QoSII, pp. 17-20).
52. King-Shan Lui, Klara Nahrstedt, Whay Lee, "*Modeling and Simulation of the Spanning Tree Alternate Routing Bridge*", **OPNETWORK**, August 2001.
53. Yi Cui, Klara Nahrstedt, "*QoS-aware Dependency Management for Component-based Systems*", **IEEE High-Performance Distributed Computing (HPDC)**, San Francisco, CA, July 2001, pp. 127-138.

54. Duangdao Wichadakul, Klara Nahrstedt, Xiaohui Gu, Dongyan Xu, "2KQ+: An Integrated Approach to QoS Compilation and Reconfigurable, Component-based Run-time Middleware for the Unified QoS Management", **IFIP/ACM International Conference on Distributed Systems Platforms and Open Distributed Processing (Middleware 2001)**, Heidelberg, Germany, November 2001, pp. 373-394.
55. Yuan Xue, Baochun Li, Klara Nahrstedt, "A Scalable Location Management Scheme in Mobile Ad-hoc Networks", **IEEE Conference on Local Area Networks (LCN)**, Tampa, Florida, November 2001, pp. 102-112.
56. Wanghong Yuan, Klara Nahrstedt, "A Middleware Framework Coordinating Processor/Power resource Management for Multimedia Applications", **IEEE Globecom**, San Antonio, TX, November 2001, pp. 1984-1988.
57. Kai Chen, Klara Nahrstedt, "An Integrated Data Lookup and Replication Scheme in Mobile Ad-Hoc Networks", **SPIE Electronic Imaging - Optoelectronic and Wireless Data Management**, Processing, Storage and Retrieval, Vol. 4534, November 2001, pp. 1-8.
58. Dongyan Xu, Klara Nahrstedt, "Finding Service Paths In a Media Service Proxy Network", **SPIE/ACM Electronic Imaging - Multimedia Computing and Networking (MMCN)**, San Jose, January 2002, pp. 171-185.
59. Kai Chen, Klara Nahrstedt, "Effective Location-guided Tree Construction Algorithms for Small Group Multicast in MANET", **IEEE INFOCOM 2002**, New York, NY, June 2002, pp. 1180-1189.
60. Jun Wang, Klara Nahrstedt, "Hop-by-Hop Routing Algorithms for Premium Class Traffic in Diffserv Networks", **IEEE INFOCOM 2002**, New York, NY, June 2002, pp. 705-714.
61. Li Xiao, Jun Wang, Klara Nahrstedt, "Extended Ticket-based Routing", **IEEE International Conference on Communications (ICC) 2002**, New York, April 2002, Volume 2, pp. 2222-2226.
62. Samarth Shah, Klara Nahrstedt, "Predictive Location-based QoS Routing in Mobile Ad-Hoc Networks", **IEEE International Conference on Communications (ICC) 2002**, New York, April 2002, Volume 2, pp. 1022-1027.
63. Xiaohui Gu, Klara Nahrstedt, "Dynamic QoS-aware Multimedia Service Configuration in Ubiquitous Computing Environments", **IEEE International Conference on Distributed Computing Systems (ICDCS) 2002**, Vienna, Austria, July 2002, pp. 311-318.
64. Duangdao Wichadakul, Klara Nahrstedt, "A Translation System for Enabling Flexible and Efficient Deployment of QoS-aware Applications in Ubiquitous Environments", **IFIP/ACM Working Conference on Component Deployment 2002**, Berlin, Germany, June 2002, pp. 210-221.
65. Xiaohui Gu, Klara Nahrstedt, "A Scalable QoS-aware Service Aggregation Model for Peer-to-Peer Computing Grids", **IEEE High Performance Distributed Computing Conference 2002**, Edinsburgh, UK, pp. 73-82.
66. Won Jeon, Klara Nahrstedt, "Peer-to-Peer Multimedia Streaming and Caching Service", **IEEE International Conference on Multimedia and Expo (ICME) 2002**, Lausanne, Switzerland, August 2002 (electronic proceedings).
67. Bin Yu, Klara Nahrstedt, "A Compressed-Domain Visual Information Embedding Algorithm for MPEG-2 HDTV Streams", **IEEE International Conference on**

- Multimedia and Expo (ICME 2002)**, Lausanne Switzerland, August 2002 (electronic proceedings).
68. Jingwen Jin, Klara Nahrstedt, "mc-SPF: An Application-Level Multicast Service Path Finding Protocol for Multimedia Applications", **IEEE International Conference on Multimedia and Expo (ICME 2002)**, Lausanne Switzerland, August 2002 (electronic proceedings).
 69. Li Xiao, King-Shan Lui, Jun Wang, Klara Nahrstedt, "*QoS Extension to BGP*", **IEEE International Conference on Network Protocols (ICNP) 2002**, Paris, France, October 2002.
 70. Duangdao Wichadakul, Xiaohui Gu, Klara Nahrstedt, "*A Programming Framework for Quality-Aware Ubiquitous Multimedia Applications*", **ACM Multimedia 2002**, France, December 2002.
 71. Won Jeon, Kyung-Joon Park, Klara Nahrstedt, "*Robust Playout Mechanisms for Internet Audio Applications*", **IEEE Local Computer Networks (LCN) 2002**.
 72. Won Jeon, Kyong-Joon Park, Klara Nahrstedt, A. Basar, "*Robust Delay Estimation for Internet Multimedia Applications*", **Interactive Distributed Multimedia Systems/ Protocols for Multimedia Systems (iDMS/PROMS) 2002**, Coimbra Portugal, November 2002,.
 73. Klara Nahrstedt, Julius Bajcsy, "*Internet-based Distance Learning in Slovakia*", **AACE E-Learn 2002**, October 2002, Montreal, Canada, pp. 1973-1976.
 74. Bin Yu, Klara Nahrstedt, "*A Real-time Software Solution for Re-synchronizing Filtered HDTV MPEG2 Transport Stream*", **4th IEEE International Symposium on Multimedia Software Engineering (MSE) 2002**, December 2002, New Port Beach, CA.
 75. 111. Yi Cui and Klara Nahrstedt, "*Proxy-based Asynchronous Multicast for Efficient On-Demand Media Distribution*", **SPIE/ACM Multimedia Computing and Networking Conference (MMCN) 2003**, January 2003, Santa Clara, CA.
 76. Wanghong Yuan, Klara Nahrstedt, Sarita Adve, Doug Jones, Robin Kravets, "*Design and Evaluation of a Cross-layer Adaptation Framework for Mobile Multimedia Systems*", **SPIE/ACM Multimedia Computing and Networking Conference (MMCN 2003)**, January 2003, Santa Clara, CA.
 77. Samarth Shah, Kai Chen, Klara Nahrstedt, "*Dynamic Bandwidth Management in Wireless LANs*", **IEEE International Conference on Pervasive Computing and Communications (PerCom) 2003**, Forth Worth, TX, March 2003
 78. Xiaohui Gu, Klara Nahrstedt, Alan Messer, Ira Greenberg, Dejan Milojicic, "*Dynamic Offloading Service for Pervasive Application Delivery*", **IEEE International Conference on Pervasive Computing and Communications (PerCom) 2003**, Forth Worth, TX, March 2003)
 79. Wanghong Yuan, Klara Nahrstedt, "*ReCalendar: calendaring and Scheduling Applications with CPU and Energy Resource Guarantees for Mobile Devices*", **IEEE International Conference on Pervasive Computing and Communications (PerCom) 2003**, Forth Worth, TX, March 2003
 80. Yuan Xue, Klara Nahrstedt, "*Fault Tolerant Routing in Mobile Ad-Hoc Networks*", **IEEE Wireless Communications and Networking Conference (WCNC 2003)**, New Orleans. Louisiana, March 2003.

81. Xiaohui Gu, Klara Nahrstedt, Rong N. Chang, Christopher Ward, "*QoS-Assured Service Composition in Managed Service overlay Networks*", **IEEE International Conference on Distributed Computing Systems (ICDCS) 2003**, Providence, Rhode Island, May 2003
82. Jingwen Jin, Klara Nahrstedt, "*Resource- and Quality-Aware Application-Level Service Multicast*", **9th IEEE International Workshop on Future Trends of Distributed Computing Systems**, May 2003, San Juan, Puerto Rico.
83. Jingwen Jin, Klara Nahrstedt, "*Large Scale Service Overlay Networking with Distance-Based Clustering*", **IFIP/ACM Middleware 2003**, Rio de Janeiro, Brazil, June 2003.
84. Wanghong Yuan, Klara Nahrstedt, "*Buffering Approach for Energy Saving in Video Sensors*", **IEEE International Conference on Multimedia and Expo (ICME) 2003**, Baltimore, August 2003.
85. Chui Sian Ong, Klara Nahrstedt, Wanghong Yuan, "*Quality of Protection for Mobile Multimedia Applications*", **IEEE International Conference on Multimedia and Expo (ICME) 2003**, Baltimore, August 2003.
86. Jingwen Jin, Klara Nahrstedt, "*On Construction of Service Multicast Trees*", **IEEE International Conference on Communication (ICC) 2003**, Anchorage, Alaska, May 2003.
87. Jun Wang, King-Shan Lui, Li Xiao, Klara Nahrstedt, "*Bandwidth Sensitive Routing in DiffServ Networks with Heterogeneous Bandwidth Requirements*", **IEEE International Conference on Communication (ICC) 2003**, Anchorage, Alaska, May 2003.
88. Kai Chen, Klara Nahrstedt, "*Towards Setting TCP's Congestion Window Limit in MANET*", **IEEE International Conference on Communication (ICC) 2003**, Anchorage, Alaska, May 2003.
89. King-Shan Lui, Way Lee, Klara Nahrstedt, "*Link Layer Multi-Priority Frame Forwarding*", **IEEE International Conference on Communication (ICC) 2003**, Anchorage, Alaska, May 2003.
90. Li Xiao, Jun Wang, Klara Nahrstedt, "*Optimizing the IBGP Route Reflection Network*", **IEEE International Conference on Communication (ICC) 2003**, Anchorage, Alaska, May 2003.
91. Li Xiao, Jun Wang, Klara Nahrstedt, "*Reliability-aware IBGP Route Reflection Topology Design*", **11th IEEE International Conference on Network Protocols**, Atlanta, GA, November 2003
92. Bin Yu, Wei-Ying Ma, Klara Nahrstedt, Hong-Jiang Zhang, "*Video Summarization based on User Log Enhanced Link Analysis*", **ACM Multimedia 2003**, San Francisco, November 2003
93. Wanghong Yuan, Klara Nahrstedt, "*Energy-Efficient Soft Real-time CPU Scheduling for Mobile Multimedia Systems*", **19th ACM Symposium on Operating Systems Principles (SOSP 2003)**, October 19-22, 2003 The Sagamore, Bolton Landing (Lake George), NY
94. King Sha Lui, Jun Wang, K Nahrstedt, "*A Receiver-initiated Method for QoS Multicast Routing with Heterogeneous Receivers*", **IEEE Globecom 2003**, December 1-5, San Francisco, CA, 2003

95. Anupama Mahajan, Klara Nahrstedt, Brian Bailey, ``A System to Remotely Control the Display of Applications in a Multi-display Environment'', **AACE E-Learn 2003** , Phoenix, Arizona, USA, November 7-11, 2003.
96. Wanghong Yuan and Klara Nahrstedt, ``Process Group Management in Cross-layer Adaptation'', **SPIE/ACM Multimedia Computing and Networking (MMCN 2004)**, San Jose, California, January 2004
97. Kai Chen, Klara Nahrstedt, Nitin Vaidya, ``The Utility of Explicit Rate-Based Flow Control in Mobile Ad Hoc Networks'', **IEEE Wireless Communications and Networking Conference (WCNC 2004)**, March 2004
98. Samarth Shah, Kai Chen, K. Nahrstedt, ``Price-based Channel Time Allocation in Wireless LANs'', **IEEE Mobile Distributed Computing (MDC 2004)**, workshop associated with ICDCS 2004, Tokyo, Japan, March 2004
99. Kai Chen, K. Nahrstedt, ``iPass: an Incentive Compatible Auction Scheme to Enable Packet Forwarding Service in MANET'', **IEEE International Conference on Distributed Computing Systems (ICDCS 2004)** Tokyo, Japan, March 2004
100. Li Xiao, Jun Wang, K. Nahrstedt, ``Reliability Models and Evaluation of Internal BGP Networks'', **IEEE INFOCOM 2004**, Hong-Kong, China, March 2004
101. Raquel Hill, Jun Wang, Klara Nahrstedt, ``Quantifying Non-Functional Requirements: A process-oriented Approach'', **12th IEEE International Conference on Requirements Engineering**, Kyoto, Japan, September 2004
102. Jin Liang, Klara Nahrstedt, Yuanyuan Zhou, ``Adaptive Multi-Resource Prediction in a Distributed Resource Sharing Environment'', **4th IEEE/ACM Symposium on Cluster Computing and Grids (CCGrid'04)**, Chicago, IL, April 2004
103. Vanish Talwar, Bikash Agarwalla, Sujoy Basu, Raj Kumar, Klara Nahrstedt, ``A Resource Allocation Architecture with support for Interactive Sessions in Utility Grids'', (Poster Paper), **IEEE International Symposium on Cluster Computing and Grids (CCGrid 2004)**, Chicago, IL, April 2004
104. Jingwen Jin, Klara Nahrstedt, ``Source-based QoS Service Routing in Distributed Service Networks'', **IEEE International Conference on Communications (ICC 2004)**, Paris, France, June 2004
105. Jingwen Jin, Klara Nahrstedt, ``QoS Service Routing in One-to-One and One-to-Many Scenarios in Next Generation Service-Oriented Networks'', **IEEE International Performance, Computing, and Communications Conference (IPCCC 2004)**, Phoenix, AZ, April 2004
106. Yuan Xue, Kai Chen, Klara Nahrstedt, ``Proportional Delay Differentiation in Wireless LAN'', **IEEE International Conference on Communications (ICC 2004)**, Paris, France, June 2004
107. Xiaohui Gu, Klara Nahrstedt, ``An Integrated Peer-to-Peer Service Composition Framework'', **IEEE High Performance Distributed Computing (HPDC-13)**, Honolulu, Hawaii, June 2004
108. Xiaohui Gu, Klara Nahrstedt, Rong Chang, Zon-Yin Shae, ``An Overlay Based QoS-Aware Voice-Over-IP Conferencing System'', **In Proceedings of IEEE International Conference on Multimedia and Expo(ICME2004)**, Taipei, Taiwan, June 27-30, 2004

109. Yi Cui, Baochun Li, Klara Nahrstedt, "*On Achieving Optimized Capacity Utilization in Application Overlay Networks with Multiple Competing Sessions*", **ACM Symposium on Parallel Algorithms and Architectures (SPAA'04)**, Barcelona, Spain, June 2004
110. Samarth Shah, Klara Nahrstedt, "*'Channel-Aware Throughput Fairness in Multi-Cell Wireless LANs*", **VTC'F04 Wireless Personal Communication Systems**, Los Angeles, CA, September 2004
111. Jingwen Jin, Klara Nahrstedt, "*On Exploring Performance Optimizations in Service Composition*", **ACM/IFIP/USENIX International Middleware Conference (Middleware'04)**, Toronto, Canada, October, 2004
112. Wanghong Yuan, Klara Nahrstedt, "*Practical Voltage Scaling for Mobile Multimedia Devices*", **ACM Multimedia** New York, NY, October 2004
113. Jin Liang, Klara Nahrstedt, "*Service Composition for Advanced Multimedia Applications*", **SPIE/ACM Multimedia Computing and Networking (MMCN'05)**, San Jose, CA, January 2005
114. Bin Yu, Klara Nahrstedt, "*IPOD: Interactive Production on Demand*", **SPIE/ACM Multimedia Computing and Networking (MMCN'05)**, San Jose, CA, January 2005
115. Xiaohui Gu, Klara Nahrstedt, Philip Yu, "*Optimal Component Composition for Scalable Stream Processing*", **IEEE International Conference on Distributed Computing Systems (ICDCS 2005)**, Ohio, Columbus, June, 2005.
116. Wenbo He, Klara Nahrstedt, "*A Feedback Control Scheme for Resource Allocation in Wireless Multi-hop Ad Hoc Networks*", **ACM/IEEE MobiQuitous 2005**, San Diego, CA, July 17-21, 2005
117. Kai Chen, Zhenyu Yang, Christian Wagener, Klara Nahrstedt, "*Market Models and Pricing Mechanisms in a Multihop Wireless Hotspot Network*", **ACM/IEEE MobiQuitous 2005**, San Diego, CA, July 2005
118. Yuan Xue, Yi Cui, Klara Nahrstedt, "*A Utility-based Distributed Maximum Lifetime Routing Algorithm for Wireless Networks*", **2nd International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks QShine 2005**, Orlando, FL, August 2005
119. Samarth Shah, Klara Nahrstedt, "*Guaranteeing Throughput for Real-time Traffic in Multi-hop IEEE 802.11 Wireless Networks*", **IEEE International Conference on Military Communication (MILCOM 2005)**, Atlantic City, NJ, October, 2005.
120. Zhenyu Yang, Klara Nahrstedt, Ruzena Bajcsy "*TEEVE: The Next Generation Architecture for Tele-Immersive Environments*", **IEEE International Symposium on Multimedia (ISM 2005)**, UC Irvine, CA, December 2005
121. E-yong Kim, Li Xiao, Klara Nahrstedt, "*Identity-based Registry for Secure Inter-domain Routing*", **ACM Symposium on Information, Computer and Communications Security**, Taipei, Taiwan, 2006
122. Wenbo He, Klara Nahrstedt, "*Impact of Upper layer Adaptation on End-to-end Delay Management in Wireless Ad Hoc Networks*", **IEEE RTAS 2006**, San Jose, CA
123. Wenbo He, Klara Nahrstedt, "*An Integrated Solution to Delay and Security Support in Wireless Ad Hoc Networks*", **IEEE Wireless Communications and Networking Conference**, 2006, April 2006, Las Vegas, NE, USA

124. Zhenyu Yang, Yi Cui, Bin Yu, Zahid Anwar, Robert Bocchino, Nadir Kiyancak, Klara Nahrstedt, Roy Campbell, William Yurcik, "Real-Time 3D Video Compression for Tele-immersive Environments, **SPIE/ACM Multimedia Computing and Networking (MMCN 2006)**, San Jose, CA, January 2006
125. Jin Liang, Klara Nahrstedt, "DagStream: Locality Aware and Failure Resilient Peer-to-Peer Streaming, **SPIE/ACM Multimedia Computing and Networking (MMCN 2006)**, San Jose, CA, January 2006
126. William Conner, Klara Nahrstedt, "Preventing DoS attacks in peer-to-peer media streaming systems", **SPIE/ACM Multimedia Computing and Networking (MMCN 2006)**, San Jose, CA, January 2006
127. William Conner, Tarek Abdelzaher, Klara Nahrstedt, "Using Data Aggregation to Prevent Traffic Analysis in Wireless Sensor Networks", **International Conference on Distributed Computing in Sensor Systems** (Applications track) (also published in Springer Lecture Notes in Computer Science, Volume 4026/2006, pp. 202-217, Editors: Phillip B. Gibbons, Tarek Abdelzaher, James Aspnes.
128. Michael Treaster, William Conner, Indranil Gupta, Klara Nahrstedt, "Using Contagion Theory For Adaptive, Distributed Alert Propagation", **IEEE 5th International Symposium on Network Computing and Applications (NCA)**, Cambridge, MA, July 2006
129. Jin Liang and Klara Nahrstedt, "RandPeer: Membership Management for QoS Sensitive Peer-to-Peer Applications, in *Proc. of IEEE Infocom 2006*, April, 2006
130. Li Xiao and Klara Nahrstedt, "Minimum User-Interference Routing in Service Composition", **IEEE INFOCOM 2006**, April 2006, Barcelona, Spain.
131. Won Jeon, Klara Nahrstedt, "QoS-aware Object Replication in Overlay Networks", **IEEE Globecom 2006**, San Francisco, CA, November 2006
132. Bin Yu, Cha Zhang, Yong Rui, Klara Nahrstedt, "A Three-Layer Virtual Director Model for Supporting Automated Multi-site Distributed Education, **IEEE ICME 2006**, July 2006, Toronto, Canada
133. Zhenyu Yang, Bin Yu, Wanmin Wu, Ross Danikov, Klara Nahrstedt, Ruzena Bajcsy, "Study of Collaborative Dancing in Tele-Immersive Environment", **IEEE International Symposium on Multimedia (ISM) 2006**, San Diego, USA, December 2006
134. Jin Liang, Xiaohui Gu, Klara Nahrstedt, "Self-Configuring Information Management for Large-Scale Service Overlays", **IEEE INFOCOM 2007**
135. Wenbo He, Xue Liu, Hoang Ngyuen, Klara Nahrstedt, Tarek Abdelzaher, "[PDA: Privacy-preserving Data Aggregation in Wireless Sensor Networks](#)", **IEEE INFOCOM 2007**
136. Wenbo He, Ying Huang, Klara Nahrstedt, Whay Lee, "SMOCK: Scalable Key Management Scheme for First Responder Systems", **IEEE Pervasive Computing and Communication (PerCom) 2007**.
137. Yuan Xue, Hoang Ngyuen, Klara Nahrstedt, "CA-AQM: Channel-Aware Active Queue Management for Wireless Networks", **IEEE International Conference on Communications (ICC)**, 2007.
138. Muyuan Wang, Klara Nahrstedt, "A portable scene-aware view management system for video-conferencing", **IEEE ICME'07**, 2007, Beijing, China

139. H. Ngyuen, K. Nahrstedt, " *Attack Containment Framework for Large-Scale Critical Infrastructures.*", **IEEE ICCCN'07** (International Conference on Computer Communication and Networking) , Hawaii, August 2007, **Best paper award nomination** – in top 5 best papers
140. Jinweng Jin, Klara Nahrstedt, " *Large-Scale QoS-Aware Service-Oriented Networking with a Clustering-Based Approach*", **IEEE ICCCN'07** (International Conference on Computer Communication and Networking), Honolulu, Hawaii, August 2007
141. Zhenyu Yang, Wanmin Wu, Klara Nahrstedt, Gregorij Kurrilo, Ruzena Bajcsy, "ViewCast: View Dissemination and Management for Multi-party 3D Tele-immersive Environments", **ACM Multimedia'07**, September 2007, Augsburg, Germany (long paper).
142. Klara Nahrstedt, Ruzena Bajcsy, Lisa Wymore, Renata Sheppard, Katherine Mezur, " *Computational Model of Human Creativity in Dance Choreography*" **AAAI Spring Symposium Series, Creative Intelligent Systems**, March 2008, Stanford University.
143. Ying Huang, Wenbo He, Klara Nahrstedt, Whay Lee, " *Incident Scene Mobility Analysis*", **2008 IEEE International Conference on Technologies for Homeland Security**, Boston, MA, May 2008.
144. Wanmin Wu, Zhenyu Yang, Klara Nahrstedt, Indy Gupta, " *Towards Multisite Collaboration in 3D Tele-immersive Environments*", **IEEE International Conference on Distributed Computer Systems (ICDCS)**, Beijing, China, June 2008
145. Wanmin Wu, Zhenyu Yang and Klara Nahrstedt, " *A study of visual context representation and control for remote sport learning tasks*", **AACE World Conference on Educational Multimedia, Hypermedia and Telecommunications (ED-MEDIA)**, Vienna, Austria, June/July 2008.
146. Morihiko Tamai, Wanmin Wu, Klara Nahrstedt, Keiichi Yasumoto, " *A View Control Interface for 3D Tele-immersive Environments*", **IEEE International Conference on Multimedia and Expo (ICME) 2008**, June 2008, Hanover, Germany
147. Chia-Chen Lin, Klara Nahrstedt, Chung-Juei Jung, " *An Image Copy Detection Scheme Based on Edge Features*", **IEEE ICME, June 2008**, Hanover, Germany
148. Long Vu, Klara Nahrstedt, Matthias Hollick, " *Exploiting Schelling Behavior for Improving Data Accessibility in Mobile Peer-to-Peer Networks*", **ACM MobiQuitous 2008**, July 2008, Dublin, Ireland
149. Renata Sheppard, Mahsa Kamali, Raoul Rivas, Morihiko Tamai, Zhenyu Yang, Wanmin Wu, Klara Nahrstedt, " *Advancing Interactive Collaborative Mediums through Tele-Immersive Dance (TED): a Symbiotic Creativity and Design Environment for Art and Computer Science*", **ACM Multimedia 2008 (Long Art Paper)**, October 2008, Vancouver, Canada
150. Wanmin Wu, Zhenyu Yang, Klara Nahrstedt, " *Implementing a Distributed 3D Tele-Immersive System*", **IEEE International Symposium on Multimedia (ISM 2008)**, Berkeley, CA, USA
151. William Conner, Klara Nahrstedt, " *Protecting SIP Proxy Servers Ringing-based Denial-of-Service Attacks*", **IEEE ISM 2008**, Berkeley, CA

152. Ying Huang, Wenbo He, Klara Nahrstedt, Whay Lee, “CORPS: Event-Driven Mobility Model for First Responders in Incident Scene”, **MILCOM 2008**, San Diego, CA
153. Wenbo He, Xue Liu, Hoang Ngyuen, Klara Nahrstedt, Tarek Abdelzaher, “iPDA: An Integrity-Protecting Private Data Aggregation Scheme for Wireless Sensor Networks”, **MILCOM 2008**, San Diego, CA
154. Muyuan Wang, Klara Nahrstedt, “Social Structure Based Routing Intermittently Connected Network Using Contact Information”, **MILCOM 2008**, San Diego, CA
155. Qiyang Wang, Ying Huang, Himanshu Khurana, Klara Nahrstedt, “Time Valid One-Time Signature for Time-Critical Multicast Data Authentication”, **IEEE INFOCOM 2009**, Rio de Janeiro, Brazil, 2009
156. William Conner, Arun Iyengar, Thomas Mikalsen, Isabelle Rouvellou, Klara Nahrstedt, “A Trust Management Framework for Service-oriented Environments”, **ACM WWW 2009**, Madrid, Spain, April 2009.
157. Rahul Malik, Chandrasekar Ramachandran, Indranil Gupta, Klara Nahrstedt, “Samera: A scalable and memory-efficient feature extraction algorithm for short 3D video segments”, **ICST 2nd International Conference on Immersive Telecommunications (IMMERSCOM’09)**, Berkeley, CA, May 2009.
158. Rahul Malik, Klara Nahrstedt, Jennifer C. Hou, “Tele-Immersion for Wireless Networks”, **IMMERSCOM’09**, Berkeley, CA, May 2009.
159. Ying Huang, Wenbo He, Klara Nahrstedt, “Optimizing File Retrieval in Delay-Tolerant Content Distribution Community”, **IEEE ICDCS 2009**, Montreal, Canada, June 2009
160. Won Jeon, Kyungtae Kang, Roy Campbell, Klara Nahrstedt, “Simulation Framework and Performance Analysis of Multimedia Broadcasting Service over Wireless Networks”, **IEEE ICDCS 2009**, Montreal, Canada, June 2009.
161. Ahsan Arefin, Yusuf Sarwar, Indy Gupta, Klara Nahrstedt, “Q-Tree: A Multi-Attribute Based Range Query Solution for Tele-Immersive Framework”, **IEEE ICDCS 2009**, Montreal, Canada, June 2009.
162. Vanish Talwar, Klara Nahrstedt, Dejan Milojevic, “Modeling Remote Desktop Systems in Utility Environments with Application to QoS Management”, **IFIP/IEEE International Symposium on Integrated Network Management (IM 2009)**, Hofstra University, Long Island, NY, June 1-4, 2009.
163. Suleyman Uludag, Ziyneki Uludag, Klara Nahrstedt, King-Shan Lui, Fred Baker, “A Laplace Transform-based Method to Stochastic Path Finding”, **IEEE International Conference on Communications (ICC 2009)**, QoS and Modelling Symposium (CQRM), June 14-18, 2009, Dresden, Germany.
164. Thadpong Pongthawornkamol, Klara Nahrstedt, “HybridCast: A Hybrid Probabilistic/Deterministic Approach for Adjustable Broadcast Reliability in Mobile Wireless Ad Hoc Networks”, **IEEE ICC 2009**, AHSN, Dresden, Germany
165. Rahul Malik, Sangkyum Kim, Xin Jin, Chandrasekar Ramachandran, Jiawei Han, Indranil Gupta, Klara Nahrstedt, “MLT-Index: An Index Structure for Fast and Scalable Similarity Search in High Dimensions”, **21st International Conference on Scientific and Statistical Database Management (SSDBM’09)**, New Orleans, Louisiana, USA.

166. Rahul Malik, Wanmin Wu, Klara Nahrstedt, “*Modeling the Tele-Immersive System Using Stochastic Activity Network*”, **IEEE International Conference on Multimedia and Expo (ICME’09)**, (Nomination for Best Paper), Cancun, Mexico.
167. Wanmin Wu, Zhenyu Yang, Klara Nahrstedt, “*Dynamic Overlay Multicast in Multi-Stream/Multi-Site 3D Collaborative Systems*”, **ACM NOSSDAV 2009**, NC, June 2009.
168. Ying Huang, Klara Nahrstedt, Wenbo He, “*ChainFarm: A Novel Authentication Protocol for High-rate Any Source Probabilistic Broadcast*”, **IEEE MASS 2009**, October 12-15, 2009.
169. Wanmin Wu, Md Arefin, Raoul Rivas, Klara Nahrstedt, “*Quality of Experience in Distributed Multimedia Environments: Towards a Theoretical Framework*”, **ACM Multimedia 2009**, Beijing, China, October 2009 (long paper)
170. Shu Shi, Won Jeon, Klara Nahrstedt, Roy Campbell, “*Real-Time Remote Rendering of 3D Video on Mobile Devices*”, **ACM Multimedia 2009**, Beijing, China, October 2009, (long paper)
171. Wanmin Wu, Raoul Rivas, Md Arefin, Shu Shi, Renata Sheppard, Klara Nahrstedt, Roy Campbell “*MobileTI: A Portable Tele-Immersive System*”, **ACM Multimedia 2009**, Beijing, China, October 2009 (short paper)
172. Chandrasekar Ramachandran, Rahul Malik, Klara Nahrstedt, Jiawei Han, “*VideoMule: A Consensus Learning Approach to Multi-Label Classification from Noisy User-Generated Videos*”, **ACM Multimedia 2009**, Beijing, China, October 2009 (short paper).
173. Qiyang Wang, Long Vu, Himanshu Khurana, Klara Nahrstedt, “*Identifying Malicious Nodes in Network-Coding-Based Peer-to-Peer Streaming Networks.*” **IEEE INFOCOM 2010**, Mini-Conference, 2010
174. Ramanarayan Vasudevan,, Edgar Lobaton, Gregorij Kurillo, Tony Bernardin, Bernd Hamann, Ruzena Bajcsy, Klara Nahrstedt, “*A Methodology for Remote Virtual Interaction in Teleimmersive Environments*”, **1st ACM International Conference on Multimedia Systems (MMSys)**, Phoenix, AZ, February 2010
175. Thadpong Pongthawornkamol, Shameem Ahmed, Akira Uchiyama, Klara Nahrstedt, “*Zero-knowledge Real-time Indoor Tracking via Outdoor Wireless Directional Antennas*”, **IEEE Pervasive Computing and Networking (Percom’10)**, Germany. March 2010.
176. Thadpong Pongthawornkamol, Klara Nahrstedt, Guijun Wang, “*Probabilistic QoS Modeling for Reliability/Timeliness Prediction in Distributed Content-based Publish/Subscribe Systems over Best-effort Networks*”, **IEEE International Conference on Autonomic Computing and Communications**, Washington, DC, June 2010 .
177. Ying Huang, Yan Gao, Klara Nahrstedt, “*Relay Placement for Reliable Base Station Connectivity in Polymorphous Networks*”, **7th IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON 2010)**,
178. Ishan Vaishnavi, Ahsan Arefin, Raoul Rivas, Klara Nahrstedt, Dick Bulterman, “*Eureka: A Methodology for Measuring bandwidth usage of networked games, environments and applications*”, **IEEE ICME 2010**, Singapore, June 2010.

179. Wucherl Yoo, Won Jeon, Shu, Shi, Roy Campbell, Klara Nahrstedt, “*Real-time Parallel Remote Rendering for Mobile Devices using Graphics Processing Units*”, **IEEE ICME 2010**, Singapore, June 2010.
180. Long Vu, Klara Nahrstedt, “*Joint Bluetooth/Wifi Scanning Framework for Characterizing and Leveraging People Movement in University Campus*”, **ACM MSWiM’10** 12th ACM International Conference on Modeling, Analysis and Simulation , Turgutreis, Turkey, October 17-21, 2010
181. Shu Shi, Mahsa Kamali, Klara Nahrstedt, John Hart, Roy Campbell “*A High-Quality Low-Delay Remote Rendering System for 3D Video*”, **ACM Multimedia 2010**, Florence, Italy, October 2010.
182. Ahsan Arefin, K. Nahrstedt, R. Rivas, J. Han, Z. Huang, “*DIAMOND: Correlation-based Anomaly Monitoring Daemon for DIME*”, **IEEE International Symposium on Multimedia (ISM 2010)**, Taiwan, December 2010.
183. Ahsan Arefin, W. Wu, R. Rivas, Z. Huang, S. Shi, P. Agarwal, K. Nahrstedt, “*I’m the Jedi!*” - A Case Study of User Experience in 3D Tele-Immersive Gaming”, **IEEE International Symposium on Multimedia (ISM 2010)**, Taiwan, December 2010
184. Pooja Agarwal, R. Rivas, W. Wu, K. Nahrstedt, “*Bundle of Streams: Concept and Evaluation in Distributed Interactive Multimedia Environments*”, **IEEE International Symposium on Multimedia (ISM 2010)**, Taiwan, December 2010.
185. Hoang Nguyen and Klara Nahrstedt, “*Identifying Insider-based Jammers in Multi-channel Wireless Networks,*” *Proceedings of IEEE GLOBECOM 2010*, Miami, Florida, Dec. 6-10, 2010
186. Zixia Huang, Wanmin Wu, Klara Nahrstedt, Raoul Rivas and Ahsan Arefin, “*SyncCast: synchronized dissemination in multi-site interactive 3D tele-immersion*”, In *Proceedings of ACM Multimedia Systems Conference (MMSYS)*, San Jose, CA, February 2011
187. Long Vu, Quang Do, Klara Nahrstedt, ” *Jyotish: A Novel Framework for Constructing Predictive Model of People Movement from Joint Wifi/Bluetooth Trace*”, **IEEE International Conference on Pervasive Computing and Communication (Percom 2011)**, Seattle, WA, March 2011 (**Best Paper – Mark Weiser Award**)
188. Klara Nahrstedt, Zheng Zeng, Ying Huang, Long Vu, Anjali Sridhar, “*Readiness of 802.11 Infrastructure for Mobile Learning Communities*”, in *Proc. of AACE Ed-Media*, 2011, Lisbon, Portugal, June 2011.
189. Kurchi Subhra Hazra, Klara Nahrstedt, “*Group Formation and Communication in Mobile Wireless Environments*”, in *Proc. of IEEE MILCOM*, 2011, Baltimore, MD, October 2011
190. Wanmin Wu, Ahsan Arefin, Gregorij Kurillo, Pooja Agarwal, Klara Nahrstedt, Ruzena Bajcsy, “*Color-plus-Depth Level –of-Detail in 3D Teleimmersive Video – A Psychophysical Approach*”, **ACM Multimedia 2011**, Scottsdale, AZ, USA, November 2011 (**Best Student Paper Award**)
191. Shu Shi, Cheng-Hsin Hsu, Klara Nahrstedt, Roy Campbell , “*Using Graphics Rendering Contexts to Enhance the Real-Time Video Coding for Mobile Cloud Gaming:*”, **ACM Multimedia 2011**, Scottsdale, AZ, November 2011.

192. Zixia Huang, Ahsan Arefin, Pooja Agarwal, Klara Nahrstedt, Wanmin Wu, “*Towards the Understanding of Human Perceptual Quality in Tele-immersive Shared Activity*”, **ACM MMSys**, 2012, North Caroline, USA, February 2012 (short paper).
193. Zixia Huang and Klara Nahrstedt, “*Perception-based playout scheduling for high-quality real-time interactive multimedia*”, In Proceedings of **IEEE International Conference on Computer Communications (INFOCOM) miniconference**, March 2012
194. Arefin Ahsan, Zixia Huang, Klara Nahrstedt, Pooja Agarwal, “*4D TeleCast: Towards Large Scale Multi-site and Multi-view Dissemination of 3DTI Content*”, **IEEE International Conference on Distributed Computing Systems (ICDCS 2012)**, Makau, China, June 2012.
195. Debessay Kassa, Yunlong Gao, Klara Nahrstedt, “*Impact of Cloudlets on Interactive Mobile Cloud Applications*”, 16th IEEE Enterprise Computing Conference (**EDOC 2012**), Beijing, China, September 10-14, 2012.
196. Anjali Sridhar, Klara Nahrstedt, Long Vu, “*Sangam - Efficient Cellular-WiFi Group Framework for File Sharing Service*”, **IEEE MILCOM 2012**, Orlando, Florida, October 29-November 1, 2012.
197. Rini Kaushik, Klara Nahrstedt, “*A Cyber-Physical, Data-Centric Cooling Energy Costs Reduction for Approach for Big Data Analytics Cloud*”, **ACM SC (Supercomputing) 2012**, Salt Lake City, 10-16, November 2012.
198. Md Ahsan Arefin, Raoul Rivas, Klara Nahrstedt, “*Prioritized Evolutionary Optimization in Open Session Management for 3D teleimmersion*“, **ACM MMSys 2013**, Oslo, Norway
199. Debessay Fesehay Kassa, Klara Nahrstedt, “*Hincent: Quick Content Distribution With Priorities and High Incentives*”, **10th Annual IEEE Consumer Communications and Networking Conference (CCNC’2013)**, Las Vegas, USA, January, 2013.
200. Chien-nan Chen, Klara Nahrstedt, “*Activity-based Synthesized Frame Generation in 3DTI Video*”, **IEEE ICME 2013**, San Jose, CA.
201. Pengye Xia, Klara Nahrstedt, “*Object-level Bandwidth Adaptation Framework for 3D Tele-immersive System*”, **IEEE ICME 2013**, San Jose CA.
202. Thadpong Pongthawornkamol, Klara Nahrstedt, Guijun Wang, “*Reliability and Timeliness Analysis of Fault-tolerant Distributed publish-subscribe systems*”, **USENIX 10th ICAC 2013, International Conference on Autonomic Computing**, San Jose, June 24-28, 2013.
203. Gyorgy Dan, King-Shan Lui, Rehana Tabassum, Quanyan Zhu, Klara Nahrstedt, “*SELINDA: A Secure, Scalable and Light-Weight Data Collection Protocol for Smart Grids*”, **IEEE SmartGridComm 2013**, "Smart Grid Cyber Security and Privacy" Symposium, Vancouver, Canada, October 21-24, 2013.
204. Ahsan Arefin, Raoul Rivas, Rehana Tabassum, Klara Nahrstedt, “*OpenSession: SDN-based Cross-layer Multi-stream Management Protocol for 3D Teleimmersion*”, **IEEE 21st International Conference on Network Protocols (ICNP 2013)**, Gottingen, Germany, October 2013.
205. Xiaoyong Zhou, Soteris Demetriou, Dongjing He, Muhammad Naveed, Xiaorui Pan, Xiaofeng Wang, Carl Gunter, Klara Nahrstedt, “*Identity, Location, Disease, and More: Inferring Secrets from Android Public Resources*, **ACM CCS 2013**

206. Shannon Chen, Klara Nahrstedt, "Impact of Morphing-based Frame Synthesis on Bandwidth Optimization for 3DTI Video", **IEEE International Symposium on Multimedia (ISM)**, 2013, Anaheim, California, USA.
207. Andrew Kryczka, Ahsan Arefin, Klara Nahrstedt, "AvCloak: A Tool for Black Box Latency Measurements in Video Conferencing Applications", **IEEE ISM 2013**, Anaheim, California, USA.
208. Shannon Chen, Klara Nahrstedt, Indranil Gupta, "Amphitheater: A Manageable 3DTI Environment with Hierarchical Stream Prioritization", **ACM Multimedia Systems (MMSys)**, Singapore, March 2014.
209. Debessay Kassa, Klara Nahrstedt, "SCDA: SLA-aware Cloud Datacenter Architecture for Efficient Content Storage and Retrieval", **IEEE International Conference on Cloud Computing (CLOUD 2014)**, Anchorage, Alaska, June, 2014.
210. Tim Yardley, Suleyman Uludag, Klara Nahrstedt, Peter Sauer, "Developing a Smart Grid Cybersecurity Education Platform and a Preliminary Assessment of its First Application", **IEEE Frontiers in Education Conference (FIE 2014)**, (Full Paper), October 22-25, 2014, Madrid, Spain.
211. Suleyman Uludag, Peter Sauer, Klara Nahrstedt, Tim Yardley, "Towards Designing and Developing Curriculum for the Challenges of the Smart Grid Education", **IEEE Frontiers in Education Conference (Full Paper)**, (FIE 2014), October 22-25, 2014, Madrid, Spain
212. Dongjing He, Muhammad Naveed, Carl Gunter, Klara Nahrstedt, "Prevalence of Security Concerns in Communication and Storage in Android mHealth Apps", **AMIA 2014 Annual Symposium**, November 2014, Washington, DC.
213. Haiming Jin, He Huang, Lu Su, Klara Nahrstedt, "Cost-minimizing Mobile Access point Deployment in Workflow-based Mobile Sensor Networks", **22nd IEEE International Conference on Network Protocols (IEEE ICNP 2014)**.
214. Haiming Jin, King-Shan Lui, Suleyman Uludag, Klara Nahrstedt, "Secure Data Collection in Constrained Tree-Based Smart Grid Environments", **IEEE SmartGridComm'14 Symposium – Communications and Networks Track**, Italy, 2014
215. Hongyang Li, György Dán, and Klara Nahrstedt, "Portunes: Privacy-Preserving Fast Authentication for Dynamic Electric Vehicle Charging", in **Proc. of 5th IEEE International Conference on Smart Grid Communications (SmartGridComm 2014)**, 2014
216. Siting Chang, Hongyang Li, Klara Nahrstedt, "Charging Facility Planning for Electric Vehicles", **IEEE International Electric Vehicle Conference (IEVC)**, Venice, Italy, December 2014.
217. Hongyang Li, Gyorgy Da, Klara Nahrstedt, "Proactive key dissemination-based fast authentication for in-motion inductive EV charging", **IEEE ICC, SAC – Communications for the Smart Grid**, June 2015, London, Great Britain.
218. Haiming Jin, Lu Su, Klara Nahrstedt, "Quality of Information Aware Incentive Mechanisms for Mobile Crowd Sensing Systems", **ACM MobiHoc 2015**, China, June 2015.
219. Hongyang Li, Gyorgy Dan, Klara Nahrstedt, "Lynx: Authenticated Anonymous Real-Time Reporting of Electric Vehicle Information", **IEEE SmartGridComm '15 Symposium – Security and Privacy**, November, 2015, Miami FL

220. Phuong Ngyuen, Aleksander Slominski (IBM), Vinod Muthusamy (IBM), Vatche Ishakian (IBM), Klara Nahrstedt, "Process Trace Clustering: A Heterogeneous Information Network Approach", **SDM 2016**, 16th SIAM International Conference on Data Mining, May 5-7, 2016, Miami, FL.
221. Chien-Nan Chen, Klara Nahrstedt, "Metadata-Based Activity Analysis in 3D Tele-Immersion", **IEEE BigMM (International Conference on Multimedia Big Data)**, 2016, Taipei, Taiwan, April 20-22, 2016
222. Rhaban Hark, Dominik Stingl, Nils Richerzhagen, Klara Nahrstedt, Ralf Steinmetz, "DistTM: Collaborative Traffic Matrix Estimation in Distributed SDN Control Planes", **IFIP Networking 2016**
223. Klara Nahrstedt, Siting Chang, "Placement of Energy Sources for Electric Transportation in Smart Cities", **IEEE SMARTCOMP 2016**, St. Louis, MO, May 2016.
224. Haiming Jin, Lu Su, Bolin Ding, Klara Nahrstedt, Nikita Borisov, "Enabling Privacy-Preserving Incentives for Mobile Crowd Sensing Systems", **IEEE ICDCS 2016**, Nara Japan.
225. Haiming Jin, Lu Su, Houping Xiao, Klara Nahrstedt, "INCEPTION: Incentivizing Privacy-Preserving Data Aggregation for Mobile Crowd Sensing Systems," the 17th **ACM Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc 2016)**, Paderborn, Germany, July, 2016.
226. Phuong Nguyen, Klara Nahrstedt, "Resource Management for Elastic Publish Subscribe Systems: A Performance Modeling-based Approach", **IEEE International Conference on Cloud Computing (CLOUD 2016)**, San Francisco, CA.
227. Tuo Yu, Haiming Jin, Klara Nahrstedt, "WritingHacker: Audio-based Eavesdropping of Handwriting via Mobile Devices" **UbiComp 2016**, Heidelberg, September 12-16, 2016
228. Wenyu Ren, King-Shan Lui, Klara Nahrstedt, "OLAF: Operation-Level Traffic Analyzer Framework for Smart Grid" **IEEE SmartGridComm 2016**, Australia, October 2016
229. Haiming Jin, Lu Su, Klara Nahrstedt, "CENTURION: Incentivizing Multi-Requester Mobile Crowd Sensing", **IEEE INFOCOM 2017**, Atlanta, GA, May 2017.
230. Phuong Nguyen, Steven Konstanty, Todd Nicholson, Thomas O'Brien, Aaron Schwartz-Duval, Timothy Spila, Klara Nahrstedt, Roy Campbell, Indranil Gupta, Michael Chan, Kenton McHenry and Normand Paquin, "4Ceed: Real-Time Data Acquisition and Analysis Framework for Material-related Cyber-Physical Environments", **IEEE/ACM 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing**. Madrid, Spain, May 14-17, 2017 (**Best Paper Award**)
231. Haiming Jin, Lu Su, Klara Nahrstedt, "Theseus: Incentivizing Truth Discovery in Mobile Crowd Sensing Systems", **ACM MobiHoc 2017**, July 10-14, Chennai, India
232. Phuong Nguyen, Klara Nahrstedt, "MONAD: Self-adaptive Micro-service Infrastructure for Heterogeneous Scientific Workflows", **14th IEEE International Conference on Autonomous Computing (ICAC 2017)**, July 17-21, 2017, Columbus, Ohio.

233. Tarek Elgamal, Klara Nahrstedt, “Multi-camera Summarization of Rehabilitation Sessions in Home Environment”, **ACM Multimedia 2017**, San Francisco, CA October 2017.
234. Yuan Tian, Suraj Raghuraman, Thiru Annaswamy, Aleksander Borresen, Klara Nahrstedt, Balakrishnan Prabhakaran, “H-TIME: Haptic-enabled Tele-Immersive Musculoskeletal Examination”, **ACM Multimedia 2017**, Mountain View, CA October 2017 (**Best Paper Student Award**)
235. Wenyu Ren, Tim Yardley, Klara Nahrstedt, “ISAAC: Intelligent Synchrophasor Data Real-Time Compression Framework for WAMS”, **IEEE International Conference on Smart Grid Communications (SmartGridComm 2017): Data Management and Grid Analytics - S5**. Data Management and Grid Analytics, October 2017, Dresden Germany.
236. Tianyuan Liu, Adam Bates, Klara Nahrstedt, “AliDrone: Enabling Trustworthy Proof-of-Alibi for Commercial Drone Compliance”, **8th IEEE International Conference on Distributed Computing Systems (ICDCS)**, Vienna, Austria, July 2-5, 2018.
237. Tarek Elgamal, Klara Nahrstedt, Gul Agha, “DROPLET: Distributed Operator placement for IoT Applications Spanning Edge and Cloud Resources”, **2018 IEEE International Conference on Cloud Computing (IEEE CLOUD 2018)**, July 2-7, 2018, San Francisco, CA (**Nominated for Best Paper Award – In Top Three Papers**).
238. Haiming Jin, Hongpeng Gao, Klara Nahrstedt, “Squadron: Incentivizing Quality-Aware Mission-Driven Crowd Sensing”, **Fusion 2018**, Cambridge, England, July 10-15, 2018.
239. Anh Nguyen, Zhisheng Yan, Klara Nahrstedt, “Your Attention is Unique: Detecting 360-Degree Video Saliency in Head-Mounted Display for Head Movement Prediction”, **ACM Multimedia 2018**, Seoul, South Korea, October 2018.
240. Wenyu Ren, Tim Yardley, Klara Nahrstedt, “EDMAND: Edge-Based Multi-Level Anomaly Detection for SCADA Networks” **IEEE SmartGridComm 2018**, Aalborg, Denmark, October 29-31, 2018
241. Tarek Elgamal, Atul Sandur, Klara Nahrstedt, Gul Agha, “Costless: Optimizing Cost of Serverless Computing through Function Fusion and Placement.” **ACM Symposium on Edge Computing (SEC’18)**, October 25-27, 2018, Seattle, WA.
242. Haiming Jin, Hongpeng Guo, Lu Su, Klara Nahrstedt, Xibing Wang, “Dynamic Task Pricing in Multi-Requester Mobile Crowd Sensing with Markov Correlated Equilibrium”, **IEEE INFOCOM 2019**, Paris, France, April 29- May 2, 2019.
243. Bo Chen, Zhisheng Yan, Haiming Jin, Klara Nahrstedt, “Event-driven Stitching for Tile-based 360 Video Live”, **ACM Multimedia Systems (MMSys 2019)**, Amherst, MA, USA, June 2019
244. Zhe Yang, Phuong Nguyen, Haiming Jin, Klara Nahrstedt, “MIRAS: Model-based Reinforcement Learning for Microservice Resource Allocation over Scientific Workflows”, **IEEE International Conference on Distributed Computing Systems (ICDCS 2019)**, July 2019, Dallas, TX.
245. Tuo Yu, Haiming Jin and Klara Nahrstedt, “ShoesLoc: In-Shoe Force Sensor-Based Indoor Walking Path Tracking,” **ACM PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies**, vol. 3(1), 2019, presented at UBIKOM 2019, London, UK, September 2019.

246. Tuo Yu, Klara Nahrstedt, “ShoesHacker: Indoor Corridor Map and User Location Leakage Through Force Sensors in Smart Shoes”, **ACM PACM on Interactive, Mobile, Indoor Walking Path tracking (IMWUT 2019)**, presented at UBIKOM 2019, London, UK, September 2019.
247. Wenyu Ren, Tuo Yu, Tim Yardley, Klara Nahrstedt, “CAPTAR: Causal-Polytree-based Anomaly Reasoning for SCADA Networks“, **IEEE SmartGridComm 2019**, Beijing, China, October 2019.
248. Jounsup Park, Klara Nahrstedt, “Navigation Graph for Tiled Media Streaming”, **ACM Multimedia 2019**, Nice, France, October 2019.
249. Tuo Yu, Klara Nahrstedt, “MMLoc: Multi-Mode Indoor Localization System based on Smart Access Points”, **EIA Mobiquitous 2019**, Houston, TX, November 2019.
250. Tarek Elgamal, Klara Nahrstedt, “SerDab: An IoT Framework for Partitioning Neural Networks Computation across Multiple Enclaves”, **20th IEEE/ACM International Symposium on Cluster, Cloud, and Internet Computing (CCGrid 2020)**, Melbourne, Australia, December 2020.

Patents:

- Wenbo He, Ying Huang, Klara Nahrstedt, Whay Lee, “Method and apparatus for alerting nodes of a malicious node in a mobile ad-hoc communication system”, **US Patent 8,069,216**; (filed in December 8, 2006, Awarded November 29, 2011, Assignee: Motorola Solutions, Inc.
- C. Hsu, S. Shi, K. Nahrstedt, R.H. Campbell, “Real-time Video Coding Using graphics Rendering Contexts”, **US Patent 20,130, 083, 161**; Application number 13/249447, Publication date: 2013/4/4.
- K. Nahrstedt, P. Argarwal, R. Rivas, W. Wu, A. Arefin, Z. Huang, “Streaming Service for Correlated Multi-Streaming”, **US Patent US20130166766A1**, Application number 13/538,589, Filed Publication date: 2012/6/29.

Conference Posters and Short Papers:

1. Xiaohui Gu, Klara Nahrstedt, “*QoS Programming and Compilation for Pervasive Computing*”, **Int’l Conf. on Programming Languages and Interfaces (PLDI)**, Poster in Student Research Forum, Snowbird, Utah, Jun. 2001.
2. Jingwen Jin, Klara Nahrstedt, “*Hybrid Multicasting in Large-Scale Service Networks*”, **13th World Wide Web Conf.** (WWW 2004 Poster Session), New York, NY, May 2004
3. Sarita Adve, Douglas Jones, Robin Kravets, Klara Nahrstedt, “*GRACE: A Hierarchical Cross-Layer Adaptation Framework for Saving Energy*”, **IBM Austin Conf. on Energy-Efficient Design (ACEED)**, Mar. 2005
4. Vibhore Vardhan, Daniel Grobe Sachs, Wanghong Yuan, Albert F. Harris, Sarita V. Adve, Douglas L. Jones, Robin H. Kravets, and Klara Nahrstedt, “*GRACE: A Hierarchical Cross-Layer Adaptation Framework for Saving Energy*”, (Poster/Demo Session) **ACM MobiSys**, 2005

5. Jin Liang, Steven Ko, Indranil Gupta, Klara Nahrstedt, "*MON: Management Overlay Networks for Distributed Systems*", **ACM SOSP 2005** (Poster), Brighton, United Kingdom, Oct. 2005.
6. Albert F. Harris, Daniel Grobe Sachs, Vibhore Vardhan, Won Jeon, Sarita Adve, Douglas Jones, Robin Kravets, Klara Nahrstedt, "*The Illinois GRACE Project: Energy-efficient Cross-Layer System Design*", Short Abstract, Poster and Demonstration, **Mobicom 2005** (Demo and Poster Session), Koln, Germany
7. Wenbo He, Ying Huang, Klara Nahrstedt, Whay Lee, "*A Scalable Public Key Management Scheme in Wireless Ad Hoc Networks*", **Mobicom 2006** (Poster Session), Los Angeles, USA, Sept. 2006
8. Long Vu, Jin Liang, Indranil Gupta, Klara Nahrstedt, "*Measurement and Modeling of a Large-scale Overlay for Multimedia Streaming*", **IEEE High Performance Distributed Computing (HPDC) 2007** (Poster Session), Monterey, CA 2007
9. Wenbo He, Ying Huang, Klara Nahrstedt, "*Privacy-preserving Data Aggregation in Wireless Sensor Network*", **Vodafone Symp.** (attendance by Invitation only), Mar. 2007, **Best poster presentation award.**
10. Wenbo He, Ying Huang, Klara Nahrstedt, Whay C. Lee, "*Mobi-Herald: Alert Propagation in Mobile Ad Hoc Networks*", **ACM Mobicom 2007** (Poster Session), Montreal, Canada, Sept. , 2007
11. Roger Chen, Klara Nahrstedt, "*Empirical Study of 3D Video Source Coding for Auto-stereoscopic Displays*" **ACM Multimedia'07**, September 2007, Augsburg, Germany (short paper)
12. Wanmin Wu, Z. Yang, K. Nahrstedt, G. Kurillo, R. Bajcsy, "Towards Multi-Site Collaboration in Tele-Immersive Environments", **ACM Multimedia'07**, September 2007, Augsburg, Germany (short paper)
13. Shu Shi, Klara Nahrstedt, Roy Campbell, "*View-Dependent real-time 3D Video Compression for Mobile Device*", **ACM Multimedia (Short Paper) 2008**, System and Networking Track, October 2008, Vancouver, Canada
14. Chandrasekar Ramachandran, Rahul Malik, Klara Nahrstedt, Jiawei Han, "VideoMule: A Consensus Learning Approach to Multi-Label Classification from Noisy User-Generated Videos", **ACM Multimedia (Short Paper) 2009**, Beijing , China, October 2009
15. Hoang Ngyuen, Klara Nahrstedt, "*Alibi: A framework for identifying insider-based jamming attacks in multi-channel wireless networks*", (Poster Session), **ACM CCS 2009**, Chicago, IL, November 2009
16. Qiyang Wang, Himanshu Khurana, Klara Nahrstedt, " *Non-Interactive Multi-Level Key Establishment Scheme for Hierarchical Electric Power Grid*", (Poster Session), **ACM CCS 2009**, Chicago, IL, November 2009
17. Rini Kaushik, Klara Nahrstedt, "*Lightning: Self-Adaptive, Energy-Conserving, Multi-Zoned, Commodity Green Cloud Storage System*", **IEEE High-Performance Distributed Computing (HPDC) 2010** (Short Paper), Chicago, IL June 2010 (**Best Short Paper Award**)
18. Zixia Huang, Ahsan Arefin, Pooja Agarwal, Klara Nahrstedt, Wanmin Wu, "*Towards the Understanding of Human Perceptual Quality in Tele-immersive Shared Activity*", **ACM MMSys**, 2012, North Caroline, USA, February 2012 (short paper).

19. Debessay Kassa, Klara Nahrstedt, “*SCDA: SLA-aware Cloud Datacenter Architecture for Efficient Content Storage and Retrieval*”, **ACM HPDC 2013** (short paper)
20. Aadhar Jain, Ahsan Arefin, Raoul Rivas, Klara Nahrstedt, “*3D Teleimmersive Activity Classification Based on Application-System Metadata*”, **ACM Multimedia 2013** (short paper), Barcelona, Spain, October 2013.
21. Hongyang Li, Gyorgy Dan, Klara Nahrstedt, “*FADEC: Fast Authentication for Dynamic Electric Vehicle Charging*”, **1st IEEE Conference on Communications and Network Security 2013** (Poster Session)
22. Ahsan Arefin, Klara Nahrstedt, “*Multi-stream Frame Rate Guarantee using Cross-Layer Synergy*”, **IEEE ICNP 2013**, Gottingen, Germany, October 2013.
23. Shannon Chen, Pengye Xia, Klara Nahrstedt, “*Activity-Aware Adaptive Compression: A Morphing-Based Frame Synthesis Application in 3DTP*”, **ACM Multimedia 2013**, contribution to Huawei Multimedia Challenge, Barcelona, Spain, October 2013. (**winner of the Huawei/3D Life Grand Challenge 2013**)
24. Phuong Cao, Adam Slagell, Hongyang Li, Zbigniew Kalbarczyk, Ravishankar Iyer, and Klara Nahrstedt, “*Personalized Password Guessing: Model and Applications*”, **HotSOS 2014**, 2014 Symposium and Bootcamp on the Science of Security
25. Guliz Seray Tuncay, Kirill Varshavsky, Robin Kravets, Klara Nahrstedt, “*SaveAlert: An Efficient and Scalable Sensor-driven Danger Detection System*”, Poster, **ACM Mobicom 2014**, September 2014.
26. Sabrina Schulte, Shannon Chen, Klara Nahrstedt, “*Stevens’ Power Law in 3D Teleimmersion – Towards Subjective Modeling of Multimodal Cyber Interaction*”, **ACM Multimedia 2014**, Orlando, Florida, Short Paper.
27. Zhenhuan Gao, Chien-Nan (Shannon) Chen, Klara Nahrstedt, “*OmniViewer: Multi-modal Monoscopic 3D DASH*”, **ACM Multimedia**, 2015
28. Wenyu Ren, Klara Nahrstedt, Tim Yardley, “*Operation-Level Traffic Analyzer Framework for Smart Grid*”, **HotSOS 2016** (3rd Annual Symposium and Bootcamp on the Science of Security (HotSoS), CMU, Pittsburgh, PA.
29. Bjorn Richerzhagen, Juian Wulfheide, Heinz Koepl, Andreas Mauthe, Klara Nahrstedt, Ralf Steimetz, “*Enabling Crowdsourced Live Event Coverage with Adaptive Collaborative Upload Strategies*”, **IEEE WoWMoM 2016** (International Symposium on World of Wireless, Mobile and Multimedia Networks, Coimbra, Portugal, June 21-24, 2016 (Work-In-Progress Paper)
30. Tarek Elgamal, Atul Sandur, Klara Nahrstedt, Gul Agha, “*Distributed Placement of Machine Learning Operators for IoT Applications spanning Edge and Cloud Resources*”, **SysML Conference**, February 15-16, 2018, Stanford, CA.
31. Zhe Yang, Patrick Su, Robert Kaufman, Steve Konstanty, John Dallesasse, Klara Nahrstedt, “*SENSELET: Sensory Network Infrastructure for Scientific Lab Environments*”, **ACM Practice and Experience in Advanced Research Computing Conference Series (PEARC 2019)**, Chicago, IL (Poster), August 2019.
32. Robert Kaufman, Patrick Su, Zhe Yang, Steve Konstanty, Todd Nicholson, John Dallesasse, Klara Nahrstedt, “*Data Curation and Analysis for Semiconductor Device Research*”, **ACM Practice and Experience in Advanced Research Computing Conference Series (PEARC 2019)**, Chicago, IL (Poster), August 2019.

Video Demonstrations:

1. Renata Sheppard, W. Wu, Z. Yang, K. Nahrstedt, L. Wymore, G. Kurillo, R. Bajcsy, K. Mezur, “*New Digital options in Geographically Distributed Dance Collaborations with TEEVE (Tele-immersive Environments for EVerybody)*”, **ACM Multimedia**, Sept. 2007, Augsburg, Germany (Video Program).
2. Renata Sheppard, K. Nahrstedt, R. Bajcsy, L. Wymore, “*Tele-Immersive Dance: A Human/Computer Creative Environment*”, **AAAI 2008**, Chicago, July 2008 (Video Program), nominated for most innovative video award (three videos nominated out of 26 accepted videos).
3. R. Sheppard, M. Tamai, K. Nahrstedt, W. Wu, Z. Yang, “*WiiView: A View control interface for 3D tele-immersive environments*”, **IEEE ICME 2008**, Hannover, Germany, June 2008 (Video Program)
4. Renata Sheppard, Mahsa Kamali, Morihiko Tamai, Raoul Rivas, Zhenyu Yang, Wanmin Wu, Klara Nahrstedt, “*Tele-immersive Dance (TED): Evolution in Progress*”, **ACM Multimedia 2008**, Vancouver, BC, Canada, October 2008.
5. Ahsan Arefin, Raoul Rivas, Zixia Huang, Shu Shi, Pooja Agarwal, Klara Nahrstedt, “*Teleimmersive Environments for Gaming*”, **ACM Multimedia 2011**, Scottsdale, AZ, November 2011 (technical demonstration).
6. Suraj Raghuraman, Karthik Venkatraman, Zhanyu Wang, Jian Wu, Jacob Clements, Reza Lotfian, Balakrishnan Prabhakaran, Xiaohu Guo, Roozbeh Jafari, Klara Nahrstedt, “*Immersive multiplayer tennis with Microsoft Kinect and body sensor networks*”, **ACM Multimedia 2012**: 1481-1484 (Short Paper and Video Demonstration)
7. Pengye Xia, “*TEEVE-Remote: A Novel User-Interaction Solution for 3D Tele-immersion System*”, **IEEE ISM 2012**, Irvine, California, USA, December 10-12, 2012.
8. Pengye Xia, Klara Nahrstedt, “*TEEVE Endpoint: Towards the Ease of 3D Tele-Immersive Application Development*”, **ACM Multimedia 2013**, Barcelona, Spain, October 2013 (technical Demonstration)
9. Zhenhuan Gao, Shannon Chen, Klara Nahrstedt, “*FreeViewer: An Intelligent Director for 3D Tele-Immersion System*”, **ACM Multimedia 2014**, Orlando, FL, November 2014. (Video Demonstration)
10. Zhenhuan Gao, Shannon Chen, Klara Nahrstedt, “*OmniViewer: Enabling Multi-Modal 3D DASH*”, **ACM Multimedia 2015**, Brisbane, Australia, October 2015. (technical demonstration)
11. Tarek Elgamal, Bo Chen, Klara Nahrstedt, “*Teleconsultant: Communication and analysis of wearable videos in Emergency Medical Environments*”, **ACM Multimedia 2017**, San Francisco, CA, October 2017 (technical demonstration)

Invited Papers

1. Klara Nahrstedt, “*Provision of End-to-End Quality of Service in Multimedia Telecommunications*”, **Int’l Wireless and Telecommunications Symposium**, Kuala Lumpur, Malaysia, May 1997, pp. 26-43.

2. Klara Nahrstedt, Lintian Qiao, "*Multimedia Secure Gateway*", **Multimedia Security Workshop** as part of the **IEEE Int'l Conf. on Multimedia and Computing Systems**, Austin, TX, Jun. 1998, pp. 1-8.
3. Shigang Chen and Klara Nahrstedt, "*Distributed Quality-of-Service Routing with Imprecise State Information for the Next Generation Internet*", **NASA NREN QoS Workshop**, NASA AMES, CA, Aug. 1998, 33-36.
4. Baochun Li, Klara Nahrstedt, "*Adaptive QoS Middleware Framework for Complex Flexible Applications*", **NASA NREN QoS Workshop**, NASA AMES, CA, Aug. 1998, pp. 21-23.
5. Klara Nahrstedt, Lintian Qiao, "*Non-Invertible Watermarking Methods for MPEG Video and Audio*", **ACM Multimedia (Security Workshop)**, Bristol, England, Sept. 1998, pp. 93-98.
6. Klara Nahrstedt, Shigang Chen, "*Coexistence of QoS and Best Effort Flows*", **10th IEEE Tyrrhenian Int'l Workshop on Digital Communications**, Ischia (Napoli), Italy, Sept. 1998, pp. 175-188.
7. Baochun Li, Dongyan Xu, Klara Nahrstedt, Jane W.S. Liu, "*End-to-End QoS Support for Adaptive Applications Over the Internet*", **SPIE 1998 Symp. on Voice, Video, and Data Communications**, Boston, MA, Nov. 1998, pp. 166-176.
8. Dongyan Xu, Baochun Li, Jane W.S.Liu, Klara Nahrstedt, "*Providing Seamless QoS for Multimedia Multicast in Real-Time Packet Cellular Networks*", **SPIE 1998 Symp. on Voice, Video, and Data Communications**, Boston, MA, Nov. 1998
9. Klara Nahrstedt, "*To Overprovision or To Share via QoS-aware Resource Management*", **IEEE High Performances Distributed Computing (HPDC)**, Los Angeles, CA, Aug. 1999
10. Klara Nahrstedt, Alex Chen, "*Global Authentication Framework Preserving Privacy in Multimedia Mobile Environments*", **ACM Multimedia (Multimedia Security Workshop)**, Oct. 30, 1999, Orlando, FL
11. Yuxin Zhou, Klara Nahrstedt, "*OPNET Simulations of InfServ/ATM Edge Devices*", **Networks and Multimedia Track of the 2000 Applied Telecommunication Symposium**, Washington, DC Apr. 2000, pp. 238-243.
12. Jun Wang, Klara Nahrstedt, "*Design and Implementation of Diffserv Routers in OPNET*", **OPNETWORK '00**, Washington, Aug. 2000/Electronic Proceedings.
13. Vanish Talwar, Klara Nahrstedt, "*Securing RSVP for Multimedia Applications*", **ACM Multimedia Security Workshop**, associated with ACM Multimedia, Nov. 2000, Los Angeles, CA
14. Baochun Li, Klara Nahrstedt, "*Impact of Control Theory on QoS Adaptation in Distributed Middleware Systems*," **American Control Conference**, Arlington, VA, Jun. 2001.
15. Bin Yu, Klara Nahrstedt, "*A Real-time Software Solution for Re-synchronizing Filtered HDTV MPEG2 Transport Stream*", **4th IEEE International Symp. on Multimedia Software Engineering (MSE) 2002**, Dec. 2002, New Port Beach, CA.
16. Samarth Shah, Kai Chen, K. Nahrstedt, "Available Bandwidth Estimation in IEEE 802.11-based Wireless Networks (Extended Abstract)", **Proceedings of 1st ISMA/CAIDA Workshop on Bandwidth Estimation (Best 2003)**, San Diego, CA, Dec. 2003

17. Chui Sian Ong, Yuan Xue, Klara Nahrstedt, “A *Middleware for Service Adaptation in Differentiated 802.11 Wireless Networks*”, **Workshop on Coordinated QoS in Distributed Systems (COQODS)**, in conjunction with IEEE Int’l Conf. on Networks (ICON), Singapore, Nov. 2004
18. Klara Nahrstedt, Wolf-Tilo Balke, “A Taxonomy for Multimedia Service Composition”, **ACM Multimedia 2004**, invited to Brave New Topics Session, New York, NY, Oct. 2004.
19. Jin Liang, Zhenyu Yang, Bin Yu, Yi Cui, Klara Nahrstedt, Sang-Hack Jung, Art Yeap and Ruzena Bajcsy, “*Experience with Multi-Camera Tele-Immersive Environment*,” **NSF Experience Workshops on Pervasive Computing and Cluster Computing** (invited), Jul. 2005, Urbana, IL.
20. R. Bajcsy, L. Wymore, K. Nahrstedt, K. Mezure, “Visual Privacy in the Collaborative Cyber-Infrastructure Environment: A Case Study of Public Dance Performance in Physical and Cyber-Space”, **Unblinking: New Perspectives on Visual Privacy in the 21st Century, A Cross-Disciplinary Symposium**, UC Berkeley, 3-4 November 2006
21. Wenbo He, Hoang Nguyen, Klara Nahrstedt, “*Experimental Validation of Middleware-based QoS Control in 802.11 Wireless Networks*”, **3rd International Conference on Broadband Communications, Networks, and Systems (BROADNETS’06)**, San Jose, CA, October 2006 (Invited Paper),
22. Long Vu, Indranil Gupta, Jin Liang, Klara Nahrstedt, “Measurement and Modeling of a Large-scale overlay for Multimedia Streaming”, **QShine 2007**, Vancouver, Canada.
23. Rivas Raoul, Wanmin Wu, Klara Nahrstedt, “Unified Time Service for Virtualized Tele-Immersive Environments”, **PCS 2009**, Chicago, IL, May 2009.
24. Klara Nahrstedt, “3D Teleimmersion for Remote Injury Assessment”, Socially-Aware Media (SAM) workshop at ACM Multimedia 2012, Nara, Japan, November 2012.
25. Raoul Rivas, Arefin Ahsan, Klara Nahrstedt, “Decima: Virtualized I/O Management in 3D Teleimmersive Networks”, **IEEE ICCCN 2013**, Bahamas, July 2013.
26. Robin Kravets, Hilfi Alkaff, Andrew Campbell, Karrie Karahalios, and Klara Nahrstedt, “CrowdWatch: Enabling In-Network Crowdsourcing”, ACM SIGCOMM Mobile Cloud Computing (MCC) Workshop, August 2013
27. Klara Nahrstedt, Hongyuan Li, Siting Chang, Phuong Nguyen, Long Vu, “Internet of Mobile Things”, **IEEE International Symposium on Internet of Things Design and Implementation (IoTDI’16)**, Berlin, April 2016.
28. Tarek Elgamal, Shannon Chen, Klara Nahrstedt, “Physical Relationship Description for Cyber-Physical Multi-Modal Sensory Environments “, **IEEE International Symposium on Multimedia (ISM’2016)**, San Jose, CA, December 2016
29. Tuo Yu, Haiming Jin, Klara Nahrstedt. Audio based Handwriting Input for Tiny Mobile Devices. **IEEE 1st International Conference on Multimedia Information Processing and Retrieval (MIPR)**, 2018, Miami, FL, April 2018.
30. Phuong Nguyen, Tarek Elgamal, Steve Konstanty, Todd Nicholson, Stuart Turner, Patrick Su, Michael Chan, Klara Nahrstedt, Tim Spila, Kenton McHenry, John Dallesasse, Roy Campbell, “Bracelet: Edge-Cloud Micro-service Infrastructure for

Aging Scientific Instruments”, **IEEE International Conference on Computing, Networking, and Communications (ICNC) 2019**, Hawaii, February 2019.

31. Bo Chen, Klara Nahrstedt, “FIS: Facial Information Segmentation for Video Redaction”, **IEEE Multimedia Information Processing and Retrieval (MIPR), 2019**, San Jose, CA, March 28-30, 2019

Workshop Papers

1. Klara Nahrstedt, Jonathan Smith, “*QoS Negotiation in a Robotics Environment*”, **IFIP International Workshop on Distributed Multimedia Applications and QoS Verification**, Montreal, Canada, Jun. 1994, pp. 156-161.
2. Klara Nahrstedt, A. Hossain, S. Kang, “*A Probe-based Algorithm for QoS Specification and Adaptation*”, **4th IFIP International Workshop on Quality of Service (IWQoS)**, Paris, France, Mar. 1996, pp. 89-100.
3. David Hull, Arjun Shankar, Klara Nahrstedt, Jane W.S. Liu, “*An End-to-End QoS Model and Management Architecture*”, **IEEE Workshop on Middleware for Distributed Real-time Systems and Services**, San Francisco, CA, Dec. 1997, pp. 82-89.
4. Dragos Manolescu, Klara Nahrstedt, “*Scalable Approach to Continuous Media Processing*”, **8th International Workshop on Research Issues in Data Engineering: Continuous-Media Databases and Applications**, Orlando, FL, Feb. 1998, pp. 84-91.
5. Baochun Li, Klara Nahrstedt, “*A Control Theoretical Model for Quality of Service Adaptation*”, **6th IFIP International Workshop on Quality of Service (IWQoS)**, Napa, CA, May 1998, pp. 145-153
6. Ian Foster, Carl Kesselman, Craig Lee, Bob Lindell, Klara Nahrstedt, Alain Roy, “*A Distributed Resource Management Architecture that Supports Advance Reservations and Co-allocation*”, **7th IFIP/IEEE International Workshop on Quality of Service (IWQoS)**, London, England, May 1999, pp. 27-36.
7. Baochun Li, Klara Nahrstedt, “*Optimal State Prediction for Feedback-Based QoS Adaptations*”, **7th IFIP/IEEE International Workshop on Quality of Service (IWQoS)**, London, England, May, 1999, pp. 37-46
8. Klara Nahrstedt, Duangdao Wichadakul, “*QoS-aware Active Gateway for Multimedia Communication*”, **6th International Workshop on Interactive Distributed Multimedia Systems and Telecommunication Services**, ENSICA, Toulouse, France, Oct., 1999, pp. 31-44.
9. Klara Nahrstedt, Dao Wichadakul, Dongyan Xu, “*Distributed QoS Compilation and Runtime Instantiation*”, **8th IEEE/IFIP International Workshop on Quality of Service (IWQoS)**, Pittsburgh, PA, June 2000, pp. 198-210.
10. Baochun Li, Dongyan Xu, Klara Nahrstedt, “*Towards Integrated Runtime Solutions in QoS-aware Middleware*”, **ACM Multimedia Middleware Workshop**, associated with ACM Multimedia, Ottawa, Canada, Oct. 2001.
11. Yi Cui, Klara Nahrstedt, “*Supporting QoS for Ubiquitous Multimedia Service Delivery*”, **ACM Multimedia Doctorial Symposium**, associated with ACM Multimedia, Ottawa, Canada, October 2001.

12. Jun Wang, Klara Nahrstedt, "*Parallel IP Packet Forwarding for Tomorrow's IP Routers*", **IEEE Workshop on High Performance Switching and Routing**, Dallas, TX, May 2001, pp 353-357.
13. Wanghong Yuan, Klara Nahrstedt, Xiaohui Gu, "*Coordinating Energy-aware Adaptation of Multimedia Applications and Hardware Resource*", **ACM Multimedia Middleware Workshop**, associated with ACM Multimedia, Ottawa, Canada, Oct. 2001.
14. Xiaohui Gu, Klara Nahrstedt, "*An Event-driven, User-centric, QoS-aware Middleware Framework for Ubiquitous Multimedia Applications*", **ACM Multimedia Middleware Workshop**, associated with ACM Multimedia, Ottawa, Canada, Oct. 2001
15. Sarita Adve, A. Harris, C. Hughes, D. Jones, R. Kravets, K. Nahrstedt, D. Sachs, R. Sasanka, J. Srinivasan and W. Yuan, "*The Illinois GRACE Project: Global Resource Adaptation through CoopEration*", **Workshop on Self-Healing, Adaptive and self-MANaged Systems (SHAMAN02)**, New York City, NY, Jun. 2002.
16. Wanghong Yuan, Klara Nahrstedt, "*Integration of Dynamic Voltage Scaling and Soft Real-time Scheduling for Open Mobile Systems*", **Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV) 2002**, Jun. 2002, pp. 105-114
17. Jingwen Jin, Klara Nahrstedt, "*Resource- and Quality-Aware Application-Level Service Multicast*", **9th IEEE International Workshop on Future Trends of Distributed Computing Systems**, May 2003, San Juan, Puerto Rico.
18. Yi Cui, Klara Nahrstedt, "*Layered Peer-to-Peer Streaming*", **IEEE Network and Operating System Support for Digital Audio and Video (NOSSDAV) 2003**, Monterey, CA, Jun. 2003
19. Yuan Xue, Baochun Li, Klara Nahrstedt, "*Price-based Resource Allocation in Wireless Ad Hoc Networks*", **IEEE/IFIP International Workshop on Quality of Service (IWQoS) 2003**, Monterey, CA, Jun. 2003
20. Yi Cui, Yuan Xue, Klara Nahrstedt, "Optimal Distributed Multicast Routing: Theory and Applications", **6th Workshop on Mathematical performance Modeling and Analysis (MAMA 2004)**, in conjunction with SIGMETRICS-PERFORMANCE 2004, Jun. 2004, New York, New York.
21. Kai Chen, K. Nahrstedt, "*Limitation of equation-based congestion control in mobile ad-hoc networks*", **IEEE Workshop on Wireless Ad Hoc Networks (WWAN 2004)**, workshop associated with ICDCS 2004, Tokyo, Japan, Mar. 2004.
22. Yi Cui, Yuan Xue, Klara Nahrstedt, "Max-min Overlay Multicast: Rate Allocation and Tree Construction", **IEEE/IFIP International Workshop on Quality of Service (IWQoS 2004)**, Montreal, Canada, Jun. 2004
23. Jin Liang, Klara Nahrstedt, "*Supporting QoS in a Non-dedicated opportunistic environment*", **4th International Workshop on Global and Peer-to-Peer Computing (GP2PC 2004)**, in conjunction with CCGRID 2004, Chicago, April 2004
24. Vanish Talwar, Bikash Agarwalla, Sujoy Basu, Raj Kumar, Klara Nahrstedt "Architecture for Resource Allocation Services supporting Interactive Remote Desktop Sessions in Utility Grids", **Middleware for Grid Computing (MGC) 2004**, workshop in conjunction with IFIP/ACM/USENIX Middleware 2004, Toronto, Canada, 2004

25. Zhenyu Yang, Klara Nahrstedt, “*A Bandwidth Management Framework for Wireless Camera Array*”, **ACM NOSSDAV 2005**, Skamania, Washington, Jun. 12-14, 2005
26. Vibore Varhan, Daniel Grobe Sachs, Wanghong Yuan, Albert F. Harris, Sarita Adve, Douglas Jones, Robin Kravets, Klara Nahrstedt, “*Integrating Fine-Grained Application Adaptation with Global Adaptation for Saving Energy*” **Second International Power-Aware Real-Time Systems Workshop (PARC'05)**, Sept. 2005, New York Metropolitan Area, NJ
27. Jin Liang Steven Ko, Indy Gupta, Klara Nahrstedt, “*MON: On-demand Overlays for Distributed System Management*”, **USENIX 2nd Workshop on Real, Large Distributed Systems (WORLDS) 2005**, San Francisco, CA, Dec. 2005
28. Jin Liang, Bin Yu, Zhenyu Yang, Klara Nahrstedt, “*A Framework for Future Internet Based TV Broadcasting*”, **Workshop on Internet Protocol TV (IPTV) services over World Wide Web, associated with ACM WWW 2006**, May 2006, Edinburgh , Scotland
29. Zhenyu Yang, Klara Nahrstedt, Bin Yu, Ruzena Bajcsy, “*A Multi-stream Adaptation framework for Bandwidth Management in 3D Teleimmersion*”, **ACM NOSSDAV 2006**, May 2006, Newport, Rhode Island
30. Klara Nahrstedt, Ruzena Bajcsy, Lisa Wymore, Gregorij Kurillo, Katherine Mezur, Renata Sheppard, Zhenyu Yang, Wanmin Wu, “*Symbiosis of Tele-Immersive Environments with Creative Choreography*”, **ACM Workshop on Supporting Creative Acts Beyond Dissemination**, associated with 6th ACM Creativity and Cognition Conf., Jun. 13, 2007, Washington, DC.
31. Ying Huang, Wenbo He, Klara Nahrstedt, Why Lee, “*DoS Resistent Broadcast Authentication With Low End-to-end Delay*”, **2nd IEEE International Workshop on Mission-Critical Networking (MCN'08)**, associated with INFOCOM 2008, Phoenix, Arizona
32. Morihiko Tamai, Keiichi Yasumoto, Klara Nahrstedt, “*Transcasting: Cost-Efficient Video Multicast for Heterogeneous Mobile Terminals*”, **16th IEEE/IFIP International Workshop on Quality of Service (IWQoS 2008)**, June 2-4, University of Twente, Enschede, Netherlands.
33. Ansgar Scherp, Frank Nack, Klara Nahrstedt, Masashi Inoue, Andreas Girgensohn, Andreas Henrich, Philipp Sandhaus, Sabine Thieme, Michelle Zhou, “*Interaction and User Experiences with Multimedia Technologies – Challenges and Future Topics*”, **Workshop at ACM Multimedia 2008**, Vancouver, Canada, October 2008.
34. Albert Sidelnik, Jui Sung, Wanmin Wu, Maria Jesus Garzaran, Wen-Mei Hwu, Klara Nahrstedt, David Padua, Sanjay Patel, “*Optimization of Tele-Immersion Codes*”, **2nd Workshop on General Purpose Computing on Graphics Processing Units (GPGPU)**, associated with ASPLOS'2009, 2009.
35. Wenbo He, Hoang Ngyuen, Xue Liu, Klara Nahrstedt, “*A Cluster-based Protocol to Enforce Integrity and Preserve Privacy in Data Aggregation*”, **Workshop on Cyber-Physical Systems (WCPS)**, in connection with IEEE ICDCS 2009, Montreal., Canada, June 2009.
36. Wanmin Wu, Zhenyu Yang, Klara Nahrstedt, “*Dynamic Overlay Multicast in Multi-Stream/Multi-Site 3D Collaborative Systems*”, **ACM NOSSDAV 2009**, NC, June 2009.

37. Wenbo He, Ying Huang, Klara Nahrstedt and Bo Wu, "Message Propagation in Ad-Hoc-Based Proximity Mobile Social Networks", **Sixth International Workshop on Mobile Peer-to-Peer Computing (MP2P'10)**, in conjunction with The Eighth Annual IEEE International Conference on Pervasive Computing and Communications (PerCom 2010), Mannheim, Germany, March 29 - April 2, 2010
38. R. Bobba, K. Rogers, Q. Wang, H. Khurana, K. Nahrstedt, T. Overbye, "Detecting False Data Injection attacks on DC State Estimation" (Extended Abstract), **1st Workshop on Secure Control Systems SCS**, April 2010, Stockholm, Sweden
39. Raoul Rivas, Ahsan Arefin, Klara Nahrstedt, "Janus: A Cross-Layer Soft Real-Time Architecture for Virtualization", **International Workshop on Virtualization Technologies in Distributed Computing (VTDC)** in conjunction with IEEE 19th International Symposium on High Performance Distributed Computing (HPDC), Chicago, IL, June 2010
40. Long Vu, Rahul Malik, Qiyan Wang, Klara Nahrstedt, "An Adaptive Content Distribution Protocol for Dynamic Peer-to-Peer Coalition Networks", **ACM International Conference on Pervasive Systems (ICPS)**, 2010, Berlin, July 2010, ADAMUS 2010 Workshop (4th International workshop on Adaptive and Dependable Mobile Ubiquitous Systems), Berlin, July, 2010.
41. Long Vu, Klara Nahrstedt, "Exploiting Opportunistic Ad hoc Connections for Improving Data Download of Cellular Users", **IEEE Globecom 2010 Workshop on Pervasive Group Communications**, Florida, 2010
42. Pooja Agarwal, Raoul Rivas, Wanmin Wu, Ahsan Arefin, Zixia Huang, Klara Nahrstedt, "SAS Kernel: Streaming as a Service Kernel for Correlated Multi-Streaming", in Proceedings of the 21th **ACM NOSSDAV 2011**, Vancouver, Canada, June 1-3, 2011.
43. Rehana Tabassum, Klara Nahrstedt, Edmond Rogers, Michael Rawson, "SCAPACH: Scalable Password-Changing Protocol for Smart grid Device Authentication", **IEEE ICCCN 2013**, Bahamas, July 2013.
44. Zixia Huang, Klara Nahrstedt, Ke Liang, "Human-Centric Multi-Layer Synchronization Scheme with Inter-Sender Synchronization", **6th International Workshop on Quality of Multimedia Experience (QoMEX)**, full regular paper, Singapore 2014.
45. Suleyman Uludag, King-Shan Lui, Wenyu Ren, Klara Nahrstedt, "Practical and Secure Machine-to-Machine Data Collection Protocol in Smart Grid", **Workshop on Security and Privacy in Machine-to-Machine Communications (M2MSec'14)**
46. Ting-yu Wang, Haiming Jin, Klara Nahrstedt, "mAuditor: Mobile Auditing Framework for mHealth Applications," 5th **ACM MobiHoc Workshop on Pervasive Wireless Healthcare (MobileHealth 2015)**, Hangzhou, China, June, 2015.
47. Siting Chang, Wenyu Ren, Klara Nahrstedt, "Dynamic Incentive Mechanism for Traffic Surveillance", **IEEE Globecom 2015 Workshop on Networking and Collaboration Issues for Internet of Everything (ONIoE)**, December 2015, San Diego, CA.

48. Hongpeng Guo, King-Shan Lui, Tianyuan Liu, Klara Nahrstedt, “Resilient Collection Protocol for Oil and Gas Refinery Network with In-node Processing”, IEEE ICNC (International Conference on Computing, Networking and Communications), **CNC (International Workshop on Computing, Networking and Communications)** 2018, Maui, Hawaii, March 2018.

News Articles

1. “3D video for the rest of us”, **TRN Research News Roundup**, December 5, 2005,
2. “3D TV For You & Me,” **Computer Power User Magazine**, Vol. 6, No. 4, Apr. 2006. <http://www.computerpoweruser.com> – Article about the TEEVE project.
3. Interview with Paul Kramer – Associate Editor of A/V Pro Magazine – article about TEEVE will appear in February 2006
4. “TEEVE creates 3D interactions in cyberspace”, **Daily Illini**, Mar. 3, 2006. Article about the TEEVE project.
5. The News-Gazette, June 5, 2006, “Just like being there”, Goal is immersive 3D video conferencing for the masses
6. ‘Wired.com’ article, June 18, 2009, <http://www.wired.com/gadgetlab/2009/06/3d-conferencing> (Report from Intel event in Santa Clara, CA, June 18. 2009
7. Forbes June 2009
<http://www.forbes.com/2009/06/18/intel-future-apple-technology-breakthroughs-moorestown.html>
8. WSJ – June 2009
<http://blogs.wsj.com/digits/2009/06/18/sifting-for-news-at-intels-annual-research-day/>
9. Ubergizmo.com – June 2009
http://gadget.blogdig.net/archives/articles/June2009/18/Intel_Research_Day_2009_.html#9f99b55b74dfc5e111f7a59b4a920689
10. CNet.com – June 2009
http://news.cnet.com/2300-1001_3-10001076.html
11. NBC – June 2009
<http://www.nbcbayarea.com/news/local/The-Future-of-Technology-Inc.html>
12. Intel Press – June 2009
http://www.intel.com/pressroom/archive/releases/20090618corp_sm.htm?iid=pr1_releasepri_20090618sm
13. ConnectedSocialMedia - June 2009
<http://connectedsocialmedia.com/4495/teeve-tele-immersive-environment-for-everybody-raoul-rivas-intelresearch-day/>
14. Mefedia.com – June 2009
http://www.mefedia.com/tags/research@intel_day_2009/rss2.xml

<http://www.wired.com/gadgetlab/tag/teeve/>

16. Converge Magazine (online publication documenting technology in modern education) – December 2010 <http://www.convergemag.com/classtech/Mobile-Quiz-Apps-Engage-College-Students.html> Mobile Quiz Apps Engage College Students, by Tanya Roscorla
17. Media Coverage of Jyotish paper : Long Vu, Quang Do and Klara Nahrstedt's paper "A Novel Framework for Constructing Predictive Model of People Movement from Joint WiFi/Bluetooth Trace" is reported in New Scientist Magazine (see both [news report](#) and [editorial](#)) and London Daily Mail (see [news report](#)). This paper was honored with PERCOM 2011 Mark Weiser best paper award.

White Papers

1. Rajeev Alur, Emery Berger, Ann W. Drobni, Limor Fix, Kevin Fu, Gregory D. Hager, Daniel Lopresti, Klara Nahrstedt, Elizabeth Mynatt, Shwetak Patel, Jennifer Rexford, John A. Stankovic, and Benjamin Zorn , “Systems Computing Challenges in the Internet of Things”, CCC White Paper, September 2015.
2. Klara Nahrstedt, Daniel Lopresti, Ben Zorn, Ann W. Drobni, Beth Mynatt, Shwetak Patel, Helen Wright, “Smart Communities Internet of Things”, CCC White Paper, January 2016.
3. Vasant G Honavar, Katherine Yelick, Klara Nahrstedt, Elizabeth Bradley, Jennifer Rexford, Elizabeth Mynatt and Mark D. Hill, “Advanced Cyberinfrastructure for Accelerating Science”, CCC Response to NSF ACI Program Request for Research Directions, April 2017.
4. Klara Nahrstedt, Christos G. Cassandras, Charlie Catlett, “City-Scale Intelligent Systems and Platforms”, CCC White Paper, April 2017.
5. Elisabeth Mynatt, Jennifer Clark, Greg Hager, Dan Lopresti, Greg Morrisett, Klara Nahrstedt, George Pappas, Shwetak Patel, Jennifer Rexford, Helen Wright, Ben Zorn, “A National Research Agenda for Intelligent Infrastructure”, CCC White Paper, April 2017.

Professional Activities

Editorships of Journals:

- **Editorial Board Member**, IEEE Multimedia Newsletters (IEEE Computer Society), Editor-in-Chief: Hartmut Wilig, 1996.
- **Guest Co-Editor of the Special Issue on “Multimedia Security”**, IEEE Computer Graphics and Applications, January/February 1999.

- **Associate Editor**, Journal on Multimedia Applications and Tools, Kluwever Publisher, Editor-in-Chief: Borko Fuhr, 2000.
- **Associate Editor**, Journal on Multimedia Applications and Tools, Kluwer Publisher, Editor-in-Chief Borko Fuhr, 2000
- **Associate Editor**, Computer Networks Journal, Elsevier Publisher, Editor-in-Chief Harry Rudin and Ian F. Akyildiz, 2000, 2001
- **Guest Co-Editor of the Special Issue on “QoS Sensitive Distributed Network Systems and Applications”**, Journal on Computer Communications, Fall 2000
- **Associate Editor**, IEEE Transactions on Multimedia, Editor-in-Chief, M.T. Sun, 2000, 2001
- **Associate Editor**, ACM Computer Communication Reviews, Editor-in-Chief John Wroclawski, 2000 - 2004
- **Editor-in-Chief**, ACM/Springer Multimedia Systems Journal, Springer Verlag Publisher, 2001 - 2005
- **Guest Co-Editor of the Special Issue on “QoS in Next-generation Wireless Multimedia Communications Systems”**, (other Guest Editors: Antonio Iera and Antonella Molinaro), IEEE Wireless Communications Magazine, Spring 2003
- **Guest Co-Editor of the Special Issue on “Multimedia Streaming”**, (other Guest Editors: W. Zhen, P.A. Chou, A. Ortega, P. Frossard, H.H. Yu) IEEE Transaction on Multimedia, Vol. 6, No. 2, April 2004.
- **Associate Editor**, Elsevier ISSN 1574-1192: Pervasive and Mobile Computing (PMC) Journal, EiC Sajal K. Das, 2005 - 2007
- **Associate Editor**, IEEE Transactions on Information Forensics and Security, EiC Pierre Moulin, 2005 - 2009
- **Guest Editor of the Special Issue on IEEE PerCom 2005**, Elsevier Pervasive and Mobile Computing (PMC), December 2005 (jointly with Philip McKinley and Mukesh Singhal) wrote Guest Editorial Introduction to Special Issue on PerCom 2005
- **Associate Editor**, ACM Transactions on Multimedia Computing, Communications and Applications, 2006 - 2011
- **Guest Co-Editor of the Special Issue on Content Storage and Peer-to-Peer Streaming**, IEEE Transactions on Multimedia, jointly with Dr. Jin Lin/Microsoft Research and Hui Zhang/CMU, 2007, Vol. 9, Issue 8, “Editorial Special Section on Peer-to-Peer Video Streaming”, Li, J., Nahrstedt, K., Zhang, H.
- **Guest Co-Editor of the Special Issue: “Cross-Layer Designs for Ad Hoc and Sensor Networks”**, Elsevier Ad Hoc Networks, jointly with Laura Galluccio and Violet R. Surotiuk, 2013.
- **Guest Co-Editor of Special Issue: “20th Anniversary of ACM SIGMM/Multimedia”**, ACM Transactions on Multimedia Computing, Communications and Applications, 2013, jointly with Malcolm Slaney and Rainer Lienhart
- **Associate Editor**, IEEE Transactions on Multimedia, Editor-in-Chief Chang Wen Chen, 2012-2016 (December)
- **Associate Editor**, IEEE Multimedia Magazine, 2018 - 2023

Conference Committees:

IEEE INFOCOM

- TPC Member: 1997, 2001

IEEE High-Performance Distributed Computing Conference (HPDC)

- TPC Member 2000, 2001, 2004, 2010

IEEE International Conference on Network Protocols (ICNP)

- Organizing Committee: 2001 (**Co-chair**),
- TPC Member: 2002, 2003, 2004, 2005

IEEE International Conference on Multimedia Computing and Systems (ICMCS) – changed to ICME later on

- TPC Member: 1999

IEEE International Conference on Multimedia and Expo (ICME)

- TPC Member: 2002, 2003, 2016

IEEE CloudComp

- TPC Member: 2016

IEEE CCGrid

- TPC Member: 2002
- Session Chair: 2017

IEEE International Conference on Distributed Computing Systems (ICDCS)

- Organizing committee: 2003 (**vice chair** – multimedia systems track)
- TPC Member: 2010-2020

IEEE International Conference on Pervasive Computing and Communications (PerCom)

- TPC Member: 2003, 2006-2008, 2010-2018.
- Organizing Committee: 2004 (**vice-chair for network track**), 2005 (**technical chair**), 2009 (**general chair**), 2013 (**keynote chair**)
- Panel Participant: 2013 PhD Symposium Panel

IEEE Real-Time System Symposium (RTSS)

- TPC Member: 2004

IEEE Real-Time Applications and Systems (RTAS)

- TPC Member: 2004

IEEE BroadNets

- TPC Member: 2005, 2006

IEEE International Conference on Peer-to-Peer Computing

- TPC Member: 2011

IEEE ICAC (International Conference on Autonomic Computing)

- TPC Member: 2012, 2013, 2014, 2018

IEEE SmartGridComm

- TPC Member 2012, 2013, 2014, 2018
- Organizing Committee: 2012 (**Co-Chair** of Smart Grid Communication Networks Symposium)
- **General Co-Chair 2020**

IEEE Multimedia Security Workshop (in conjunction with IEEE ICMCS)

- Organizing Committee: 1998 (**Chair**)

IEEE International Conference on Cloud Engineering (IC2E)

- TPC Member: 2013, 2014, 2017, 2018

IEEE SMARTCOMP

- Panel Chair: 2016
- Program Chair: 2017
- TPC Member: 2016-2018

IEEE EDGE (co-located with IEEE CLOUD)

- General Chair: 2017.

NSF/ONR Workshop on Ad Hoc Networks

- Organizing Committee: 2001 (**co-chair**)
-

NSF Workshop on Residential Broadband Networks

- Co-Chair: October 2003, Chicago, IL (**co-chair** with Rene Cruz)

NSF CISE Infrastructure PI Meeting

- Co-Chair: 2005, Urbana, IL

NSF-sponsored Experience Workshop on Pervasive Computing,

- Chair: 2005, Urbana, IL, 2005

NSF Workshop on Security in Cloud Computing

- Co-chair: March 2012, Washington, DC (co-chair with Roy Campbell)

ESTIMEDIA

- **TPC Member: 2012**

ICST QShine

- **TPC Member: 2006**

ICST IMMERSCOM

- TPC Member: 2009
- Organizing Committee: 2009 (**Publication chair**)

IFIP/IEEE IWQoS (International Workshop on Quality of Service)

- Organizing Committee: 1997 (**Program co-chair with Andrew Campbell**)
- TPC Member: 1998-2008, 2013, 2014

SPIE/ACM Multimedia Computing and Networking (MMCN) – changed to MMSys

- Organizing Committee: 2000 (**Program co-chair**),
- TPC Member: 1998, 1999, 2000, 2003, 2004, 2006

SPIE International Symposium on European Communications: Services and Technologies for New Markets

- TPC Member: 1998

European Workshop on Interactive Distributed Multimedia Systems, and Telecommunication Services

- TPC Member: 1997, 1998, 1999, 2000

European Parallel and Distributed Systems Conference

- TPC Member: 1998

International Conference on High Performance Computing

- TPC Member: 2000

International Conference on Communications and Multimedia Security

- TPC Member: 2001

ACM International Workshop on Network and Operating System Support for Digital Audio and Video (ACM NOSSDAV)

- Organizing Committee: 2007 (**general chair**)
- TPC Member: 2006, 2008-2017
- Session Chair: 2013

ACM/IFIP/USENIX Middleware

- TPC Member: 2003, 2004, 2009, 2011.

ACM Sigmetrics/Performance

- TPC Member: 2004

ACM MOBIHOC

- TPC Member: 2009

ACM MMSys

- **TPC Member: 2010-2020**

ACM E-Energy

- **TPC Member: 2013-2020**

ACM Multimedia

- **Organizing Committee:** 1998 (**associate chair**), 2000 (**technical chair of system track**), 2002 (**associate chair**), 2004 (**co-chair** of session on brave topics), 2006 (**General co-chair**), 2007-2012 (**SIGMM Chair**), 2015 (Area Chair for Telepresence);
- **Panel Organizer:** 2012 20th Anniversary of SIGMM and ACM Multimedia
- **TPC Member:** 1996, 1999, 2001, 2003, 2004, 2005, 2007-2020
- **Awards Committee:** 2015, 2016, 2017.

IEEE CLOUD

- TPC Member: 2018

IEEE IOTDI

- **TPC Member:** 2017, 2020
- **Program Co-chair:** 2018
- **General Co-Chair:** 2019

ACM Symposium on Edge Computing (SEC)

- TPC Member: 2016 -2019

ACM SenSys

- TPC Member: 2019

Invited Talks, Panels, Tutorials, Keynotes, Distinguished Lectures:

1994

- *Elements of End-to-End Delay*, **AT&T Bell Laboratories Experimental University Network (XUNET) Annual Meeting**, Chicago, IL, Feb. 1994
- *Experimental Analysis of AIX Real-Time Support for Delay Sensitive Multimedia Networked Applications*, **University de Montreal, Montreal, Canada**, Mar. 1994
- *Customized Network Services for Telerobotics Environment*, **German Aerospace Research Establishment, Institute for Robotics and System Dynamics**, DLR Oberpfaffenhofen, Germany, Sept. 1994

1995

- *The Omega Architecture for Provision of Real-Time Guarantees in Networked Multimedia Applications*, **AT&T** Murray Hill, NJ, Jan. 1995; **University of Rochester**, NY, Mar. 1995; **Johns Hopkins University**, ML, Mar. 1995; **University of Michigan**, Mar. 95, University of Illinois at Urbana-Champaign, Apr. 1995
- *The OMEGA Architecture - Design and Performance*, **Stanford University** and **HP Laboratories**, Palo Alto, CA, Dec. 1995

1996

- *Design, Implementation and Experiences with OMEGA End-point Architecture*, **Sony, Mitsubishi, Toshiba, Fujitsu**, Tokyo, Japan, Jun. 1996
- *Challenges in Multimedia Communication*, **Midwest ACM Conference, University of Illinois**, Urbana, IL, Oct. 1996
- *QoS Management in Distributed Multimedia Systems*, **Texas Instrument**, Dallas, TX, Nov. 1996
- *Multimedia Computing and Communications Research*, **University of Illinois, Computer Science talks in CS100**, Dec. 1996

1997

- *Time-Variant QoS Management*, **ECE Department, University of Illinois at Urbana-Champaign**, Urbana, IL, Feb. 1997
- *Provision of End-to-End Quality of Service Guarantees in Multimedia Communication*, *guest speaker* at the IWTS'97 (**Int'l Wireless and Telecommunications Symp./Exhibition 1997**) in Shah Alam, Malaysia, May 1997
- *Time-Variant QoS Management*, **Dagstuhl Seminar**, organized by the International Conference and Research Center for Computer Science in Schloss Dagstuhl, Jun. 1997
- *QualMan: Provision of Time-variant QoS Management*, **Lucent Technologies**, Holmdel, Aug. 1997
- *Middleware Support for QoS Management*” **Grace Hopper Conf.**, San Jose, CA, Sept. 1997
- *QoS-aware Resource Management*, **CMU, ECE Department, Pittsburgh, PA**, Feb. 1998; **Argonne National Laboratory, MCS Division, Chicago**, Jan. 1998; **Washington University, CS Department, St. Louis**, Nov. 1997; **UC Berkeley, CS Department**, Nov. 1997

1998

- *QualMan: QoS-aware Resource Management for Distributed Multimedia Systems*, **ISI (Information Science Institute)**, Los Angeles, CA, May 1998; **Boeing**, Seattle, WA, Aug. 1998
- *Globus and Quality of Service*, **Globus Retreat Meeting**, Chicago, IL Aug. 1998
- *Multimedia Security and Copy-Right Protection*, **Intel**, Aug. 1998

- *End-to-end QoS Brokerage and its Enforcement*, **Supercomputing**, Orlando, FL, Nov. 1998
- *Coexistence of QoS and Best Effort Flows: Routing and Scheduling Analysis*, **Ohio State University**, Dec. 1998

1999

- *Adaptive QoS Framework and its Application to Visual Tracking*, **University of California, Irvine**, Jan. 1999; **Purdue University**, Mar. 1999, **Polytechnic University**, New York, Mar. 1999
- *EPIQ: End-to-End QoS Management Framework*, **ARPA Meeting**, Atlanta, GA, Feb. 1999
- *End-to-End Performance Measurements*, **PACI meeting**, San Diego, CA, Mar. 1999
- *Results from NSF Workshop on Online Instrumentation*, **Grid Forum Meeting**, San Jose, CA, Jun. 1999
- *To Overprovision or to Share via QoS-aware Resource Management*, **IEEE High-Performance Distributed Computing Conf.**, Los Angeles, CA, Aug. 1999
- *Dynamic Soft-Real-time Scheduling Framework*, **Globus Retreat**, Los Angeles, CA, Aug. 1999
- *Research in End-to-End QoS: Approaches and Problem*, **NREN Workshop**, NASA, San Jose, CA, Aug. 1999

2000

- *Dynamic Soft-Real-Time Scheduling Framework*, **ETL Laboratory**, Tsukuba, Japan, Mar. 2000
- *Adaptive QoS Framework and its Application to Visual Tracking*, **ETL Laboratory**, Tsukuba, Japan, Mar. 2000; **Technical University, Karlsruhe**, Germany, Apr. 2000
- *Multimedia Security*, **ETL Laboratory**, Tsukuba, Japan, Mar. 2000
- *Control-based Adaptive QoS Framework*, **Tokyo University of Engineering**, Tokyo, Japan, Mar. 2000
- *A Secure Multicast Protocol with Copyright Protection Information Protection Seminar*, **Department of Mathematics**, University of Illinois at Urbana-Champaign, Apr. 2000
- *QoS Compilation and Runtime System*, **Purdue University**, Nov. 2000

2001

- *QoS Compiler and Runtime Setup System*, **QoS Conference**, organized by Open Group Standard Organization, San Jose, CA, Feb. 2001
- *Multimedia Security*, **University of Ottawa**, Ottawa, Canada, Feb. 2001

- *Distributed QoS Compilation and Runtime Setup System*, **Philips**, Eindhoven, The Netherlands, Mar. 2001; **University of New South Wales**, Sydney, Australia, May, 2001; **PUC, Catholica University**, Rio De Janero, May 2001; **8th Int'l Conf. on Advances in Communications and Control**, Greece, Jun. 2001
- *QoS Management in Ubiquitous Environments*, **Michigan State University**, Lansing, MI, Mar. 20, 2001
- **Panel** “*What Stands in the Way of really Advanced Use of the Internet?*”, **Brazilian Conf. on Communication**, Florianopolis, Brazil, May 2001
- *2kQ: Distributed QoS Compilation and Runtime Systems*, **Brazilian Conf. on Communication**, invited talk, Florianopolis, Brazil, May 2001
- **Tutorial**: “*QoS in Distributed Systems*,” **Brazilian Conf. on Communication**, Florianopolis, Brazil, May 2001
- *Adaptive QoS framework and its Application to Visual Tracking*, **University of Virginia**, Oct. 2001
- *QoS Routing*, **Purdue University**, Nov. 2001

2002

- *Distributed QoS Compilation and Runtime Setup System*, **HP research Lab**, March 2002

2003

- *Bandwidth Management in Single Ad Hoc Networks*, **NASA Ames**, CA, December 2003.
- *Scalability Issues in BGP Networks*, **Cisco**, CA, December 2003.
- *Overview of Wireless Research in MONET Group*, **University of California, Berkeley**, CA, *invited talk* in Professor Jean Walrand’s research group, December 2003
- **Tutorial**: *QoS in Distributed Systems*, **CNTU Taiwan**, November 22-25, Taipei, 2003
- *Challenges in QoS Routing*, **Distinguished Networking Lecture**, **CNTU**, Taipei, Taiwan, November 2003
- *Cross-Layer Adaptation for Quality-Aware Energy-Efficient Next Generation Multimedia Mobile Devices*, **National Taiwan University**, Taiwan, November 2003
- *Scalability Issues in BGP Networks*, Networking Seminar, **Hong-Kong University**, Hong-Kong, November 2003, Networking Seminar, **Chinese University Hong-Kong**, Hong-Kong, November 2003
- *Quality-Aware Service Composition Framework for Advanced Multimedia Services*, **Microsoft Research**, Beijing, China, December 2003
- *Cross-Layer Adaptation for Quality-Aware Energy-Efficient Next Generation Multimedia Mobile Devices*, **Intel Research**, Beijing, China, December 2003
- *Research Overview of Multimedia Operating and Networking Systems (MONET)*, **Beijing University**, Beijing, China, December, 2003
- *Quality-Aware Service Composition Framework for Advanced Multimedia Services*, **Tsinghua University**, Beijing, China, December 2003

- *Cross-Layer Adaptation for Quality-Aware Energy-Efficient Next Generation Multimedia Mobile Devices*, Networking Seminar, **Stanford University**, November, 2003, **Hewlett Packard**, CA, November, 2003
- *Scalability Issues in BGP Networks*, ICSI Networking Seminar, **ICSI Berkeley**, CA, December 2003
- *Quality-Aware Service Composition Framework for Advanced Multimedia Services*, **Distinguished Lecture**, **University of Pennsylvania**, Philadelphia, PA, November, 2003.
- *Using Pricing Signal for Resource Allocation in Wireless Ad Hoc Networks*, Ad Hoc Network Seminar, **EECS UC Berkeley**, September 22, 2003.
- *Cross-Layer Adaptation for Quality-Aware Energy-Efficient Next Generation Multimedia Mobile Devices*, **Distinguished Lecture**, **EECS UC Berkeley**, September, 2003.
- *Quality-aware Service Composition and Routing for Advanced Multimedia Services*, Peer-to-Peer Seminar, **EECS UC Berkeley**, September, 2003.
- *Creation and Management of Advanced Multimedia Distributed Services*, **IBM Watson Research Center**, New York, August 2003
- *QoS Research in MONET Group*, **Boeing**, Seattle, WA, July 2003
- *Future Networked Applications*, **NSF Workshop on Fundamental Research in Networking**, April 2003, Washington, VA.

2004

- *Quality-Aware Service Composition and Routing Framework for Advanced Multimedia Services*, **Google**, March 2004, Hewlett Packard, March 2004
- *Challenges of Multimedia Services in Mobile Peer-to-Peer Systems*, **Keynote Talk, Workshop on Mobile Peer-to-Peer Computing**, March 2004, associated with 2nd IEEE International Conference on Pervasive Computing and Communications 2004, Orlando, Florida, March 2004
- **Panelist: Panel on Pervasive Infrastructure Deployment, IEEE International Conference on Pervasive Computing and Communications (PerCom)**, Orlando, FL, March 2004
- *Dynamic Bandwidth Management for Single Hop Ad Hoc Wireless Networks*, Invited Talk, **Technical University, Darmstadt**, Germany, May 2004
- **Tutorial: QoS in Distributed Systems, Technical University Darmstadt**, Germany, April 22-23, 2004
- *Opportunities for Graduate Studies and Academic Visits in the Computer Science Department at University of Illinois at Urbana-Champaign*, informative seminar for undergraduate students, **TU Darmstadt**, May 2004
- *Quality-Aware Service Composition and Routing Framework for Advanced Multimedia Services*, **Technical University Darmstadt**, Germany, June 2004, **Technical University Berlin**, Germany, May 2004, **Cambridge**, England, June 2004
- *Cross-Layer Adaptation for Quality-Aware Energy-Efficient Next Generation Multimedia Mobile Devices*, **Technical University Braunschweig**, Germany, May

2004, **Technical University Magdeburg**, Germany, May 2004, **Technical University Dresden**, Germany, May 2004, **UCL, London**, England, June 2004

- **Panel Participation:** on “*Can Cross-Layer Techniques Enhance the Performance of Tactical Military Networks?*” **ONR Workshop on Cross-layer Network Design**, (by invitation only), Washington, June 2004
- *Cross-Layer Design for Data Accessibility in Mobile Ad Hoc Networks*, **ONR Workshop on Cross-Layer Network Design**, (by invitation only), Washington, June 2004
- *Impact of Cross-Layer Design on QoS-aware Resource Management in MANET*, **ONR Meeting**, Cornell University, Ithaca, October 2004
- *Cross-Layer Adaptation for Quality-Aware Energy-Efficient Next Generation Multimedia Mobile Devices*”, **Distinguished Lecture, Illinois Institute of Technology**, Chicago, IL, November 2004
- *Dynamic Bandwidth Management in Single-Hop Ad Hoc Wireless Networks*, **Georgia Southern University**, December 2004 (**CRA-W Distinguished Lecture**)

2005

- *QoS Research in MONET*, **CSL/UIUC Research Seminar**, January 2005
- *QoS/QoP Support for Multimedia Delivery in Wireless Networks*, **Boeing**, Seattle, WA, February 2005
- *Cross-Layer Adaptation for Quality-Aware Energy-Efficient Next Generation Multimedia Mobile Devices*, **University of Illinois at Chicago**, Chicago, IL, March 2005
- 4. *Pricing in Wireless Ad Hoc P2P Networks*, 2nd International **Workshop on Mobile Peer-to-Peer Computing**, associated with IEEE 3rd International Conference on Pervasive Computing and Communications, **Keynote Speaker**, Hawaii, Kauai, March 2005
- **Panelist:** at NSF CISE Infrastructure PI Meeting, Urbana, IL, July 25-26, 2005.
- *Cross-Layer Adaptation for Quality-Aware Energy-Efficient Next Generation Multimedia Mobile Devices*, Computer Science Seminar, **Linkoping University**, Sweden, September, 2005
- *Utility-based Optimization of Resource Allocation for Wireless Networks*, Thesis Opponent Presentation to Calin Curescu PhD Thesis, **Linkoping University**, Sweden, September 19, 2005
- *Next Generation of System Architectures for Tele-Immersive Environments*, IEEE 2005 3rd Workshop on Embedded Systems for Real-Time Multimedia (**EstiMedia**), **Keynote Speaker**, New York Metropolitan Area, USA, September 25, 2005
- *Hourglass Multimedia Content and Service Composition Framework*, **IBM Watson**, Hawthorne, September 26, 2005

2006

- *On-demand Overlay Networks*, **Hewlett Packard**, Palo Alto, CA, January 2006

- **Panelist:** *Video Sensors: Technological and Societal Challenges*, **Panel, SPIE/ACM Multimedia Computing and Networking Conference 2006**, San Jose, CA, January 2006
- *MON: On-Demand Management for Large-Scale Overlay Networks*”, **Peer-to-Peer Systems Workshop, Dagstuhl**, Germany, March 2006,
- *Locality-aware and Failure-Resilient Peer-to-Peer Streaming for IPTV Applications*”, **Lancaster University**, UK, May 2006
- *Next Generation of Tele-Immersive Environments for Everybody*, **Keynote Speaker** at 3rd International Symposium on 3D Data Processing, Visualization and Transmission, June 14-16, 2006, **University of North Carolina**, Chapel Hill, USA
- *TEEVE: Next Generation Architecture for Tele-immersive Environments*, Technical University, Berlin, Germany, May 2006, UCSB, Santa Barbara, June 2006, **UCLA**, CA, October 2006, **Notre Dame**, IN, **Distinguished Lecture Speaker**, November 2006
- *Cross-Layer Adaptation for Quality-Aware and Energy-Efficient Next Generation Mobile Multimedia Devices*”, **UCLA**, October 2006, **CMU**, **Distinguished Lecture Speaker**, November 2006

2007

- *Power-aware Multimedia Resource Management*, invited talk at **Workshop, UCLA**, Feb. 2, 2007, Organized by Mihaela de Shaar.
- *Integrated Security and Performance Considerations in First Responder Systems*, Distinguished Lecture, **Vanderbilt**, March 2007
- *Search for Solutions towards Future Internet(s)*, Invited Talk, **Motorola** May 2007, **Simula/University of Oslo**, Norway, June 2007
- *Internet and Multimedia System Challenges in Next Generation Tele-Immersive Environments*, **Keynote, 11th IASTED International Conference on Internet and Multimedia Systems and Applications**, August 2007, Honolulu, Hawaii
- **Panelist:** *Convergence of Network, Media and Social Interaction: Technical Challenges and Business Opportunities*, **16th IEEE International Conference on Computer Communications & Networks (ICCCN)**, Hawaii, 2007
- *Internet and Multimedia System Challenges in Tele-Immersive Systems*,” **IEEE Int’l Symp. on Multimedia, Keynote**, Dec. 2007, Taichung, Taiwan.
- *ViewCast: View Dissemination and Control for Multi-Party 3D Tele-immersive Environments*,” **National Taiwan University**, Dec. 2007, Taipei, Taiwan.

2008

- *Multi-Party 3D Tele-immersive Environments*, **Washington State University**, WA, April 2008
- *Impact of Visual Context Representation and Control on Learning/Teaching of Physical Activities in Tele-Presence Environments*, **Dagstuhl Seminar**, Dagstuhl, Germany, June 2008

- *Real-time Delivery and Jamming Containment in Wireless Substations*, DOE **ieRoadmap Working Group Meeting**, May 2008, Chicago
- *Real-Time Resource Management and 3D Stream Dissemination for Tele-Immersive Systems*, **Invited Talk at Cyber-human Workshop**, Copenhagen, Denmark, June 20, 2008
- *Integrated Quality of Service and Protection Issues in First Responder Systems*, **Invited Talk at Technical University, Darmstadt**, Germany, June 23, 2008
- *Internet and Multimedia System Challenges in Next Generation Tele-Immersive Environment*, **Lecture 1 in NAIST Institute, Japan**, July 30-August4, 2008
- *ViewCast: View Dissemination and Management for Multi-party 3D Tele-immersive Environments*, **Lecture 2 in NAIST Institute, Japan**
- *QoS Management in 802.11 Wireless Ad Hoc Networks*, **Lecture 3 in NAIST Institute, Japan**, July 30-August4, 2008
- *QoS and QoP Tradeoffs in Mobile Ad Hoc Systems for First Responders Environments*, **Lecture 4 in NAIST Institute, Japan**, July 30-August 4, 2008

2009

- *Research Challenges in Mobile Systems for First Responders*, **Departmental Seminar, April 2009**, Urbana, IL
- *View-Based Network Protocols for Multi-Party 3D Tele-Immersive Environments*, **Keynote, ICST Immerscom'09**, May 27-29, 2009
- *Integrity and Privacy Issues in Advanced Wireless Metering Infrastructure*, **TSS (Trusted Security Seminar)**, April 2009, ITI (Illinois Trust Institute), Urbana, IL
- *Integrity and Privacy Issues in Advanced Wireless Metering Infrastructure*, **Technical University, Darmstadt**, June 2009
- *Next Generation of Virtual Online Meeting Places*, **Peking University, Tshingua University, Chinese Academy**, China, November 2009.
- *View-casting: View-based Multi-Source 3D Stream Dissemination and Control for Multi-Party Tele-immersive Environments*, Networking Seminar, **University of Toronto**, November 2009

2010

- *Mobile Networking Solution “*, Distinguished Lecture, **University of Central Florida**, February 2010, Orlando, FL
- *3D Tele-Immersive Environments for Everybody (TEEVE)*, **Distinguished Lecture, Polytech@ NYU**, New York, May 2010
- *Research Overview of MONET Group*, KOM Seminar, **TU Darmstadt**, Germany, July 26, 2010.

- *Yellow Brick Road of Research*, KOM Seminar, **TU Darmstadt**, Germany July 29, 2010.
- *Excellence in Oral Presentation for Technical Speakers (Part I)*, **KOM Retreat**, Austria, August 25, 2010
- *Written Technical Communication (Part II)*, **KOM Retreat**, Austria, August 25, 2010
- *Writing the Other Stuff*, KOM Seminar, **TU Darmstadt**, Germany, November 23, 2010.
- *Adaptive Content Distribution for Dynamic Peer-to-Peer Coalition Networks*, **Keynote**, P2P Workshop, **TU Darmstadt**, Germany, July 2010.
- *Trustworthy Cyber Infrastructure for Power Grid (TCIPG)*, **SAP**, Karlsruhe, August 2010.
- *Mobile Communities: The How, Good and Bad of Tracking Them*, **Humboldt Distinguished Lecture**, **TU Darmstadt**, Germany, November 10, 2010.
- *Characterizing and Leveraging People Movement*”, Computer Science **Colloquium**, **University of Kassel**, November 2010.
- *Characterizing and Leveraging People Movement*, Computer Science **Colloquium**, **University of Mannheim**, November 2010.
- *Research Overview of Activities in Multimedia Operating and Networking Systems (MONET) Group*, Research Seminar, **KIT Karlsruhe**, November 2010
- *Characterizing and Leveraging People Movement*, Research Seminar, **INRIA**, France, December, 2010.
- *3D Tele-immersive Environments for Everybody (TEEVE)*”, Research Seminar, **Thomson-Technicolor Company**, December 2010.
- *3D Tele-Immersive Environments for Everybody (TEEVE)*, Research Seminar, **Fraunhofer Institute**, Darmstadt, December 2010.
- *4D Tele-Vision*, **keynote**, ACM 20th International Workshop on Network and Operating System Support for Digital Audio and Video (**NOSSDAV 2010**), Amsterdam, Netherlands, June 2010.
- Panelist: *Mobile Learning Communities*, **Panel** at ACM **International Conference on Pervasive Systems**, Berlin, Germany, July 2010.
- *Challenges of Mobile Multimedia Delivery in Mobile Learning Communities*, **keynote**, 3rd ACM Workshop on Mobile Video Delivery (**ACM MoViD**), in conjunction with ACM Multimedia 2010, Firenze, Italy, October 2010

2011

- *New Synchronization Challenges for Multi-Site Interactive Cyber-Physical Environments*, **EECS Distinguished Colloquium**, **University of California, Berkeley**, February 2011.
- *Characterizing and Leveraging People Movement*, **Deutsche Telecom** Invited Talk, CA, February 2011.

- *Characterizing and Leveraging People Movement on University Campus*, **Distinguished Colloquium, University of North Carolina Charlotte**, March 2011.
- *3D Tele-immersive Environments for Everybody (TEEVE)*, **Boeing Research Laboratory**, Seattle, WA, March 2011
- *Recent Advances in Modeling of Mobility Patterns and QoS Management for Mobile Publish/Subscribe and Collaborative Systems*, **Boeing Research Laboratory**, Seattle, WA, March 2011
- *Characterizing and Leveraging People Movement*, **Simula, Oslo**, May 2011
- *New Synchronization Challenges for Multi-Site Tele-Immersive Environments*, **Distinguished Lecture Series, University of Texas, Dallas**, June 2011.
- *Mobile Networking Solutions for First Responders*, **Distinguished Lecture Series, Klagenfurt, Austria**, July 2011
- *Characterizing and Leveraging People Movement*, **Computer Science Colloquium, UIUC**, September 2011

2012

- *Sensing, Analyzing and Utilizing People Movement for Efficient Mobile Phone Content Distribution*, **FXPAL**, January 2012.
- “*Characterizing and Leveraging People Movement*”, Computer Science Distinguished Lecture, **North Carolina State University**, Raleigh, NC, February 2012.
- **Panelist**: “*Hot Research Topics in Mobile Video*”, **Panel at ACM SIGMM Mobile Video Workshop (MoVid) 2012**, Chapel Hill, NC, talked about “New Mobile Delivery Framework Needed for On-Campus Video Distribution”, in connection with ACM MMSys 2012, February 2012.
- *Readiness of 802.11 Infrastructure for Mobile Learning Communities* , **Mobile Development Day**, January 27, 2012, iHotel, Research Park, Champaign, IL
- *Multi-View Video Dissemination and Delivery: Challenges and Solutions* , **Keynote** at ACM ICIMCS 2012, Wuhan, China, September 9-11, 2012
- *Multi-View Video Dissemination and Delivery: Challenges and Solutions* , **Keynote** at ACM/IEEE International Conference on Distributed Camera Systems (ICDCS) 2012, Hong-Kong, November 1, 2012.

2013

- *Characterizing and Leveraging People Movement in Mobile Networks*, **Qualcomm Distinguished Lecture**, IEEE International Conference on Networks and Communications (ICNC 2013), San Diego, February, 2013.
- *Utilizing Mobile Phones in Characterizing and Leveraging People Movement*, **Invited Talk**, Qualcomm, February 2013.

- *Open Educational Platform for Undergraduate Mobile Learning Communities*, **Qualcomm**, February 2013.
- *Characterizing and Leveraging People Movement in Mobile Learning Communities*, **Milibo Online Web-based Seminar**, April 2013, <http://www.milibo.com/talent/events.aspx>
- *Characterizing and Leveraging People Movement*, **TU Braunschweig, Germany, July 2013**.
- Keynote, **15th Computing in the 21st Century Conference (21st CCC)**, Microsoft Research Asia, Hefei, China, November 1, 2013

2014

- *How Close are we to True Tele-Physiotherapy and Remote Rehabilitation?*, Invited Talk at **TTSH Hospital**, Singapore, March, 2014
- *3D Teleimmersion for Tele-Physiotherapy: Bandwidth and Delay Issues*, Invited Talk at **NTU**, Singapore, March 2014
- *3D Teleimmersion for Telephysiotherapy: Are we there yet?*, Seminar Talk at **ADSC**, Singapore, March 2014
- *From Quality of Service to Quality of Experience: Evaluation of Immersive Telepresence Environments*, Keynote at **ADSC-I2R Immersive and Streaming Systems Workshop**, Singapore, March 2014.
- *From Quality of Service to Quality of Experiences: Evaluation of Immersive Telepresence Environments*, Invited Talk at **BAMMF FXPal**, Palo Alto, CA, May 2014
- *From MBone and Web-based Multimedia to Experiential Multimedia Systems: Time Travel with WABAC Machine*, Invited Talk at **CWI**, Amsterdam 2014
- **FCC Panel** on “Network Neutrality” Washington DC, September 2014
- Panel “*Designing usable, secure, privacy-aware, and available IoT and wearable technologies for healthcare*” at **2014 Grace Hopper Conference**, Phoenix Arizona, Friday October 10, 10:15-11:15 am; Aarathi Prasad (Moderator), Panelists: Klara Nahrstedt (UIUC), Ruzena Bajcsy (UCB), Jung Ook Hong (Fitbit), Janet Campbell (EPIC)

2015

- *Electric Vehicles and Their Impact on Trustworthy Power Grid Informatics*, **DOE TCIPG Distinguished Lecture**, University of Illinois, Urbana-Champaign, January, 2015,
- *Trustworthy Cyber-Physical Systems for Electro-Mobility*, **CS Department Distinguished Lecture**, Washington University at St. Louis, February, 2015
- *SDN-Assisted Multi-Stream Management for Real-Time Applications*, **IEEE NetSys’15**, Keynote, Cottbus, Germany, March 2015,

- *Impact of Software Defined Networks on Next Generation Real-Time Applications*, **Distinguished Lecture**, Texas A&M, March 2015, College Station, TX.
- *Trustworthy Cyber-Physical Infrastructure for Electrical Vehicles*, **Fox Valley Electric Association (FVEAA)**, April 2015, Naperville, IL
- *Joint Software-Defined Application-Network Control Plane for Next Generation Real-Time Applications*, **Distinguished Lecture**, **Academica Sinica**, Taiwan May 2015
- *Electric Vehicles – Cyber-Physical Issues*, **TCIPG summer school** June 15-20, 2015, Chicago, IL
- *SDN-Assisted Multi-Stream Management for Real-Time Applications*, **Invited Talk**, TU Darmstadt, Germany, July 2015,
- *Joint Software-Defined Application-Network Control Plane for Next Generation Real-Time Applications*, **Invited Talk**, TU Kaiserslautern, Germany, July 2015
- *CyPhy – 3D Teleimmersion for Home-Care Rehabilitation*, **2nd HCESC Symposium**, Urbana, IL, September 14, 2015.
- *3D Teleimmersion for Cyber-Physiotherapy*, **1st Annual Veteran Related Research Symposium**, August 24, 2015, University of Illinois at Urbana-Champaign, Urbana, IL
- Keynote at IEEE ISM 2015, December 2015

2016

- *Trustworthy Cyber-Physical Infrastructure for Electrical Vehicles*, **Invited Talk** at TU Darmstadt, Germany, January 2016
- *Cybersecurity Challenges of Electric Vehicles in Interdependent Cyber-Physical Environments*, **Invited Talk**, Workshop on Electric Vehicles, Organizer; Phil Krein, Washington DC, February 2016
- *Towards Experience-Centric Evaluations of Tele-Immersive Environments*, **Invited Talk**, Department of Psychology, University of Illinois. Urbana-Champaign, February, 2016
- *Trustworthy Cyber-Physical Infrastructure for Electrical Vehicles*, **Distinguished Lecture**, Missouri Science and Technology University, April 2016
- *Technological Challenges and Opportunities for Tele-Physiotherapy*, **Chittenden Symposium**, University of Illinois, Urbana-Champaign, April 2016
- *4CeeD: Real-Time Data Acquisition and Analysis Framework for Materials and Semiconductor Fabrication Cyber-Physical Environments*, **Invited Talk**, **GCASR Workshop**, University of Chicago, Chicago, April 2016

2017

- *“4CeeD: Real-Time Data Acquisition and Analysis Framework for Material-related Cyber-Physical Environments”*, **Invited Talk**, **Material Research Laboratory Seminar**, University of Illinois at Urbana-Champaign, March 2017
- *“4CeeD DIBBs Challenges and Solutions”*, Invited Contribution, **1st NSF DIBBs PI Workshop Panel**, Washington DC, January 11-12, 2017.

- “*Resilient Data Collection in Oil and Gas Refinery Sensor Networks*”, **Invited Lightning Talk, DoE CREDC Industry Workshop**, March 27-29, 2017.
- “*Smart Services for Unstructured Health-Care Environments*”, **Keynote, IEEE SmartSys** (2nd IEEE International Workshop on Smart Service Systems) at IEEE SMARTCOMP, 2017, May 29, 2017, Hong-Kong
- “*Security and Safety in Interdependent Cyber-Physical Systems*” (my statement), **Panel, BITS** (1st IEEE International Workshop on Big Data and IoT Smart Computing) at IEEE SMARTCOMP 2017, May 29, 2017, Hong-Kong
- “*Future Technological Directions of Smart Communities – CCC View*”, **Lunch Talk, ECE Department, TU Darmstadt, Germany**, July 2017
- “Exploring IoT Co-Dependencies in Electro-Mobility”, **Summer School, MSR, WA**, August 2017
- “Challenges and Opportunities with Multi-camera Systems”, **EECS Distinguished Lecture, UC Berkeley, CA**, November 2017.

2018

- “Discussion of Next Generation Immersive Technologies: Opportunities and Challenges”, **Women in Tech Day 2018 Lightning Talk**, University of Illinois at Urbana-Champaign, January 30, 2018.
- “Challenges and Opportunities in Multimedia Systems”, **Invited Talk at the National Academy of Science (Leopoldina Society)**, Computer Science Section, Ulm, Germany, February 26, 2018.
- “Towards Multi-View Live 360 Video Broadcasting”, **Distinguished Lecture, George Mason University**, Washington DC, April 2018.
- “Multi-Camera Content Delivery Systems: Challenges and Opportunities”, **Keynote, IEEE 1st International Conference on Multimedia Information Processing and Retrieval (MIPR)**, Miami, FL, April 2018
- “Biggest Challenges in Multimedia Systems”, **Panel at IEEE MIPR 2018**, Miami, FL, April 2018
- “4CeeD: IoT Application and Service for Scientific Laboratories”, **Panel Presentation at SocialSens Workshop**, held in conjunction with IEEE/ACM IoTDI (Internet of Things Design and Implementation) 2018, Orlando, Florida.
- “Teleimmersion and Video 360 VR Challenges”, **Invited Position Statement, NSF Vision Workshop on Networked Virtual and Augmented Reality Communication**, Washington DC, April 23-24, 2018.
- “Real-Time Micro-service Operating Infrastructure for Scientific Workflows”, **Distinguished Lecture, Rice University**, Houston, TX, April 2018.
- “Distribution Systems for 3D Teleimmersive and Video 360 Content: Similarities and Differences”, **Invited Lecture, ACM Multimedia Systems (MMSys) 2018**, Amsterdam, Netherlands, June 2018.
- “Adaptive and Distributed Operator Placement for Streaming Workflows in Edge-Cloud Environments” **Invited Talk, Microsoft Workshop “At the bleeding edge of Intelligent Edges”**, July 27, 2018, Redmond.

- “*Panel: Need for Interdisciplinary Research*”, **2018 ACM Richard Tapia Celebration of Diversity in Computing Conference** (Tapia), September 2018, **Panel Participation**, Orlando, FL.
- “*Security and Privacy Considerations for Legacy and Future IoT Systems*”, **43rd Annual IEEE Conference on Local Networks Conference (LCN) 2018**, **Keynote Speaker**, October 2018, Chicago, IL.
- “Real-time and Trustworthy Edge-Cloud Micro-service Operating Infrastructure for Scientific Workflows”, **Distinguished Lecture**, Simon Fraser University, British Columbia, Canada, October 2018.
- “Real-Time Micro-service Operating Infrastructure for Scientific Workflows”, **Distinguished Lecture**, Purdue University, Computer Science Department, November, 2018

2019

- “Real-Time Micro-service Operating Infrastructure for Scientific Workflows”, Invited Talk, **1st Workshop on Nano-Manufacturing**, University of Illinois at Urbana-Champaign, February 27, 2019
- “Advanced Infrastructures for Scientific Instruments and Their Data Management Life-Cycles”, **Distinguished Lecture Series, IEEE CEDA Central-Illinois Chapter**, University of Illinois at Urbana-Champaign, March 4, 2019,
- “Real-Time Micro-service Operating Infrastructure for Scientific Workflows”, **Distinguished Lecture Series, ECE Department, CMU**, Pittsburgh, PA, April 2019.
- “Real-Time Micro-service Operating Infrastructure for Scientific Workflows”, **Invited Talk, Aerospace Corporation**, Washington DC, May 17, 2019.
- “Real-Time Micro-service Operating Infrastructure for Scientific Workflows”, **Invited Talk, TU Darmstadt**, Germany, July 2019
- “Anomaly Detection and Causal Reasoning about Attacks on SCADA Networks”, **Seminar Talk, ECE Department, University of Massachusetts, Amherst**, September 2019
- “Campus-Specific Cyber-Infrastructure Challenges and Solutions for Scientific Instruments, and their Workflows and Lab Environments”, **NSF Office of Advanced Cyber-Infrastructure, Webinar**, October 2019.
- “Real-Time Micro-service Operating Infrastructure for Scientific Workflows” Harvard University, NNCI Meeting, **Invited Talk** , October 2019
- “Navigation Graphs for Tiled Media Streaming”, CS Department, Notre Dame University, **Distinguished Lecture Series**, South Bend, IN, November 2019.

2020

- “Anomaly Detection and Causal Reasoning about Attacks on SCADA Networks”, **Invited Talk, Aerospace Corporation**, Los Angeles, CA, January 2020.
- “Anomaly Detection and Causal Reasoning about Attacks on SCADA Networks”, **Invited Talk, Boeing Inc.**, Los Angeles, CA, January 2020.

- “Video 360 Systems: Challenges, Solutions and Opportunities”, **Distinguished Lecture, Indiana University**, Bloomington, IN, February 2020.

Professional Societies

- **Fellow**, Institute of Electrical and Electronics Engineers (IEEE); IEEE Professional Societies: Computer Society, Signal Processing, Communications
- **Fellow**, Association for Computing Machinery
- **Member of ACM Special Interest Groups**: SIGMM (Chair 2007-2013), SIGCOMM, SIGMOBILE, SIGOPS
- **Fellow**, American Association for the Advancement of Science (AAAS)
- **Member**, German National Academy of Sciences, Leopoldina Society

Professional Services (International and National):

- **Chair of ACM Special Interest Group on Multimedia (SIGMM)**: 2007-2013 (elected position),
- **Member of ACM SGB** (SIG Governing Board) – 2010-2012 (elected)
- **Member of National Research Council Study Group** (National Academy) 2004-2005 to evaluate AFOSR
- **Chair of Scientific Advisory Board** of the **Simula Research Laboratory**, University of Oslo, Oslo, Norway, started in 2007-2014
- **Member of Scientific Advisory Board** of the **L3S Research Center** at Leibniz University Hannover, Germany, 2011-2015
- **Member of External Advisory Board of Computer Science Department at Washington University**, St. Louis, 2007-2019
- **Member of CCC (Computing Community Consortium)**, subcommittee of CRA (Computing Research Association), 2014-2017
- **Member of CWI, Netherland, Evaluation Committee, Fall 2017**
- **Member of IEKE (Internationale Expertenkommission zur Evaluation der Exzellenzinitiative)**, International Committee to evaluate German Centers of Excellence, 2014-2016, invitation by German Government.
- **Member of German DFG Expert Committee for Excellence Strategies, 2016-2019 (International Selection Committee for Excellence Clusters and Excellence Universities, invited by the German Government)**
- **Member of IEEE Computer Society Fellow Selection Committee** for 2018, 2020
- **Steering Committee member of new ACM MM Asia (ACM SIGMM Asia Conference on Multimedia)**, 2017-2018
- **External Review Board Member of CS Department at Iowa State University, March 2019**
- **Chair of External Review Board of Digital Computing Center, University of Minnesota, April 2019**

- **Member of NSF CISE Advisory Board 2019-2020**
- **University Council Member, Technical University Darmstadt, Germany, 2020-2024 (appointed by Governor of Hessen)**
- **Reviewer/Panelist**
 - **European Research Council 2010**
 - **Engineering and Physical Sciences Research Council (EPSRC) of UK** to review fellowship proposals
 - **Swedish Resource Council (VR) 2005-2006**
 - **USA National Science Foundation, 2005-2018**
 - **Austria National Science Foundation** of the Multimedia Center in Salzburg, Austria
 - **Journals:** IEEE/ACM Transactions on Networking, ACM Transactions on Multimedia Computing, Communications and Applications, IEEE Transactions on Multimedia, IEEE Multimedia Magazine.
 - **Humboldt Foundation, Germany 2019-2020**
- **Participation in**
 - **NSF-led Workshop on Cyber-Physical Spaces** to define “tele-services” (tele-immersion) agenda within this national effort, Austin, October 2006
 - **NSF/EU-led 2nd Workshop of the EU-US Summit Series on Cyber Trust: System Dependability and Security**, April 26-27, 2007, Allerton Park, Monticello, IL, USA.
 - **ACM SIGMM Retreat** (Chaired), October 2008, Vancouver, Canada to discuss future directions of SIGMM organization
 - **NSF-led Workshop on Pervasive Computing**, February 2011, Seattle, WA
 - **LiSP Workshop on Computer Science Policies**, organized by CRA, October 2011, Washington, DC.
 - **NSF Workshop on Security for Cloud Computing (Co-Chaired)**, March 15-16, 2012, Washington, DC.
 - **NSF/Japan Workshop on First Responder Preparedness**, April 2013, Washington, DC.
 - **NSF Workshop on Nanotechnology-inspired Information Processing Systems of the Future**, August 2016, Washington, DC.
 - **NSF Workshop on Multimedia Roadmap**, March 2017, Washington, DC.
 - **NSF Vision Workshop on Networked Virtual and Augmented Reality Communications**, Washington DC, April 23-24, 2018.

Administrative Service (Department, College, Campus):

Department:

- **Graduate Studies Committee:** Member (served before 2004)
- **Distinguished Lecture Committee:** Member (before 2004), Co-chair (with D. Forsyth 2011-2012)
- **Course& Curricula Committee:** Member (served before 2004)
- **Graduate Student Admission Committee:** Member (before 2004, 2017)
- **Department Area Chair** for System and Networking: 2004-2007
- **Elected Advisory Board Member :** 2004-2009
- **Departmental Faculty Awards Chair:** 2004-2006 (established faculty awards committee in 2004 in the department), 2011-2013 (co-chair with D. Forsyth)
- **Promotion and Tenure Committee:** Member (2006-2018)
- **Search Committee for Siebel Chair:** Member (2007-2013)
- **Faculty Recruiting Committee:** Member (2007-2010, 2014, 2015, 2016, 2018), Chair 2013
- **Participation:**
 - Teaching Seminar (Prof. Ruzic), 1995
 - Mentoring Workshop, October 7, 2005
- **Panelist/Judge** in Departmental Events
 - **WCS:** 2005
 - **GAMES CS Camp** for 13/14 year old girls, August 11, 2005, Urbana, August 9, 2006, Urbana
 - **CS/College Graduate Students Seminar:**
 - i. How to find an advisor (2006),
 - ii. Academic Interviewing Process (Spring 2012, Fall 2017, Fall 2018, Fall 2019)
 - iii. Preparation of Applications for Academic Job (Fall 2012, 2013, 2014, 2015, 2016),
 - iv. Preparation for Academic Interview (February 2013, 2014, 2016),
 - v. Discussion about Academic Offers (April 2013)
 - vi. Negotiation for Academic Job (Fall 2017, Fall 2018, 2020)
 - Panel at PACAJOT (Practice for Academic Job Talks): 2010
 - Judge of Research Posters at Graduate Expo, April 2011
- **Department Associate Head:** 2011-2013
- **Chair of CS Department Head Search Committee:** 2017-2018
- **Mentoring Assistant and Associate Professors** (R. Mehta, M. Caesar): 2011-2020
- **Department Awards Committee: 2019-2020**
- **Member of BRIC (Broader Research Initiatives Committee): 2019-2020**

College:

- **Task Force** to Increase Number of Women in CS and ECE: Member (2001-2002)
- **Search Committee** for CS Department Head: Member (2001, 2007-2009)
- **Engineering Computer and Networks Sub-committee:** Member (2001-2003)

- **Steering Committee for Information Trust Institute (ITI); , Theme Leader** for Research in Secure Multimedia and Distributed Systems Area
- **Search Committee for ITI Associate Director:** Member (2008)
- **Search Committee for ITI Lead Programmer:** Member (2008)
- **Search Committee for ITI Director:** Member (2010)
- **Search Committee for Grainer (GEBI) Chairs and Professorships:** Member 2013-2018
- **Search Committee for HCESC (Health-Care Engineering Systems Center) Director:** Chair 2014
- **Dean-Appointed CS-ECE Harmonization Committee:** Member (2008)
- **CSE Advisory Board:** Member (2012-2013)
- **CoE Endowed Chair Awards Committee:** Member (2006-2009, 2011-2014)
- **CSL Policy and Planning Committee:** Member (2012-2013)
- **Acting Director of CSL** (2013-2015)
- **Director of CSL** (2015-present)
- **College of Engineering Administrative Committee:** Member (2013- present)
- Presenter at **Mavis Seminar** for Mavis Fellows/graduate students “Academic Interviewing process”, November 2017, 2018, 2019
- Presenter at **Mavis Seminar** for Mavis Fellows/graduate students “Academic Negotiation process”, November 2017, 2018, 2019
- **Budget Reform Committee for CoE:** Co-Chair, 2018 - present.

Campus:

- **Promotion and Tenure Committee:** Member (2006-2009)
- **Chancellor/Provost Advisory Board:** Member (2012-2013)
- **OTM Advisory Board:** Member (2012-2013)
- **University Scholar Awards Committee Member:** 2011-2013
- **IACAT Campus Advisory Board:** Member (2007-2010)
- **Panel Participation** in the Promotion & Tenure Program for Senior Leaders, 2007
- **Accreditation Committee, “Academic Excellence” Subcommittee:** Member (2007-2009)
- **Budget Reform Steering Committee:** Member (2016-2019)
- **Chancellor DPI Advisory Board:** Member (2018-present)

University:

- **University-wide Networking Council:** Member (2007-2008)
- **DPI (Discovery Partners Institute) Academic Executive Committee:** Member (2017-2019)
- **DPI Computing and Data Theme:** Lead (2018-2019)

Student Supervision

Advising PhD Theses: 41 (Wanmin Wu won ACM SIGMM Best PhD Thesis 2011, Shannon Chen won ACM SIGMM Best PhD Thesis 2017)

Advising MS Theses: 50 (2 Siebel Scholars, 2 Kuck Awards for Best MS Thesis)

Advising Undergraduate Senior Theses: 17 (2 Best Undergraduate Research Projects at Undergraduate Symposium)

Participation in International PhD/Promotion Committees: 18

Advising, Mentoring and Collaboration with Visiting Students, Postdoctoral Fellows and Visiting Scientists: 23

International Collaboration

With Prof. Ralf Steinmetz, Technical University Darmstadt, DFG-funded MAKI Project, 2012-2016 (Phase 1), 2016- February of 2020 (Phase 2)

Research Funding:

PI	Co-PIs	% Of Contr ol	Funding Agency	Dates	Amount
Kubitz, W. J.	Campbell, R. H. Nahrstedt, K.	50%	Office of V.P. of Academic Affairs, UIUC	5/96-6/99	\$50,000
Nahrstedt, K.		100%	NSF CAREER Award	4/96-3/01	\$200,000
Huang, T.	Moulin, P. Ramachandran, K. Nahrstedt, K.		NSF	9/96-8/01	\$1,690,851
Liu, J.	Nahrstedt, K.	100%	DARPA	4/97-4/00	\$1,976,602
Nahrstedt, K.		100%	UIUC Research Board	12/97-1/99	\$16,469
Nahrstedt, K.		100%	NASA	6/98-12/99	\$100,000
Reed, D. A.	Nahrstedt, K.	100%	NSF PACI	7/98-6/99	\$100,000
Campbell,R.H	Mickunas, M.D. Nahrstedt, K.	20%	NSF	9/98-8/01	\$960,000
Sha, L.	Campbell, R. Liu, Jane Nahrstedt, K.		ONR	12/98-11/01	\$753,875
Nahrstedt, K.	Campbell, R.	90%	Motorola (CSL)	1/99-8/01	\$209,380
Nahrstedt, K.		100%	Lucent (gift)	12/99-12/00	\$20,000
Nahrstedt, K.	Potter, C.	33%	NSF	4/99-3/00	\$20,000

	Carragher, B.				
Reed, D. A.	Nahrstedt, K.	100%	NSF PACI	7/99-6/00	\$104,987
Nahrstedt, K. change of PI – Reed original PI)	Campbell, R. Reed, D. A.	33% in 99-03 50% in 03-04	NSF	9/99-8/04	\$2,000,000
Nahrstedt, K.		100%	NSF	9/03-08-06	\$300,000
Nahrstedt, K.		100%	Springer-Verlag	12/99-12/00	\$41,525
Nahrstedt, K.	UIUC Subcontract from Cornell; Lang Tong PI	100%	ONR MURI	4/00-4/05	\$515,900 – UIUC (Overall \$6M over 5 years)
Nahrstedt, K.		100%	NASA	5/00-5/03	\$275,000
Nahrstedt, K.		100%	NSF	7/00-6/03	\$250,000
Campbell, R.	Garland, M. Kravets, R. Kriegman, D. Reed, D. A. Nahrstedt, K.	16%	NSF ITR	9/00-8/05	\$5,191,405
Adve, S.	Nahrstedt, K. Kravets, R. Jones, D.	25%	NSF ITR	9/02-8/05	\$1,000,000
Nahrstedt, K.		100%	NSF	09/03-07/05	\$70,000
Nahrstedt, K.	Campbell, R.	50%	NSF	09/05-08/08	\$600,000
Nahrstedt, K.		100%	NSF/SGER	09/07-08/08	\$100,000
Nahrstedt, K.		100%	NSF/SGER	09/08-08/09	\$100,000
Nahrstedt, K.	Campbell, R. , Caccamo, M Xu, D. (Purdue)	35%	NSF/CSR	09/07-12/11	\$435,000
Nahrstedt, K.	R. Kravets, R. Campbell, S. Poole. K. Karrahaliou, S. Kamin, I. Gupta, W. Sanders (ITI)	100%	NSF CRI (Planning)	09/09-08/10	\$100,000
Srikant, R.	Nahrstedt	50%	NSF NeTS (medium)	2010- 2015	\$450, 000
Nahrstedt, K.	Subcontract with UT Dallas B. Prabhakaran PI		NSF NetSE (large) Exploiting Multi- Modality for Tele- Immersion	10/10-12/15	\$366,399 - UIUC (Overall \$5M)
Gunter,C.	Nahrstedt, K, Campbell, R.	30%	NSF CISE Frontier on Trustworthy Healthcare and Wellness (with Dartmouth, John	2013-2018	\$10M (over \$2M to Illinois)

			Hopkins, U. Michigan)		
Kravets, R.	Nahrstedt, K.	50%	NSF CISE CSR Eager	2013-2014	\$100,000
Nahrstedt, K.		100%	NSF CSR	09/08-08/11	\$300,000
Nahrstedt, K.		100%	NSF CSR	9/00-8/03	\$300,000
Nahrstedt, K.	Group of 5 faculty		NSF ACI DIBBs (T2C2)	10/14-9/19	\$1,500,000
Nahrstedt, K.	Group of 4 faculty	100%	NSF ACI CC (BRACELET)	4/17 – 3/19	\$500,000
Nahrstedt, K.	Group of 5 faculty	100%	NSF OAC CC (SENSELET)	10/18– 9/20	\$500,000
McHenry, K.	Nahrstedt, K (Co-PI)	25%	NSF OAC (CLOWDER)	10/18 – 9/23	(Overall \$5M), \$200K per year
Nahrstedt, K.	Zink, M. (PI), Sitaraman, R. (UMass Amherst)	33%	NSF CNS: Scalable Dissemination and Navigation of Video 360 Content for Personalized Viewing	10/1/19 – 9/30/23	(Overall \$1.2M), \$400K (UIUC)
Sanders, W.	Part of 18 other members	1 grad student	NSF Cyber-trust Center (TCIP)	09/05-08/10	\$7.5M
Sanders, W/	Part of 18 other members	1 grad student	DOE/NSF TCIPG Center	10/10-09/15	\$13M
Nicol, D.	Part of 18 other members	1 grad student	DOE/DHS CREDC Center	10/15-09/20	\$28M
Sanders, W.	Part of Boeing Trusted Software Center (project with N. Vaidya)	1 grad student	ITI/Boeing	09/06-08/12	\$600K (Nahrstedt, K.) (Overall \$6M over 6 years)
Nicol, D.	Nahrstedt, K.	1 grad student	ITI/Boeing	8/11-8/13	\$200,000 (Nahrstedt)
Nicol, D.	Nahrstedt, K	1 grad student	ITI/Boeing	1/2018 - 12/2020	\$100K per year
Nahrstedt, K	Boeing/ Wang	100%	CS/Boeing	9/10-12/10	\$50,000
Nahrstedt, K	Boeing/ Wang	100%	CS/Boeing	5/11-12/11	\$50,000
Nahrstedt, K.	Boeing/Wang	100%	CS/Boeing	5/12-12/12	\$50,000
Nahrstedt, K.	Boeing center	100%	NCSA/Boeing	09/07-08/08	\$100,000
Nahrstedt, K	Boeing/Wang	100%	CS/Boeing	09/08-12/08	\$50,000
Nahrstedt, K.		100%	NCSA/Boeing	01/09-09/10	\$100,000
Nahrstedt, K.		100%	ITI/Boeing	01/18-12/20	\$240,000
Nahrstedt, K.		100%	Motorola	9/02-8/03	\$31,745
Nahrstedt, K.		100%	CSL/Motorola Center	09/05-08/08	\$300,000
Nahrstedt, K.		100%	Fisher Fellow	09/02-08/20	\$325,000
Nahrstedt, K.		100%	Boeing	06/04-12/04	\$50,000
Nahrstedt, K.		100%	Lucent (gift)		\$20,000

Nahrstedt, K.		100%	Sony (gift)		\$25,500
Nahrstedt, K.		100%	Microsoft (gift)		\$15,000
Nahrstedt, K.		100%	Microsoft	08/05-07/06	\$50,000
Nahrstedt, K.		100%	Grainger	09/07-08/08	\$100,000
Nahrstedt, K.		100%	Vodafone	2009	\$20,000
Nahrstedt, K.		100%	Qualcom (gift)	2010	\$40,000
Nahrstedt, K.		100%	Deutsche Telecom (gift)	2011	\$70,000
Nahrstedt, K.		100%	Intel (gift)	2011-2012	\$20,000
Nahrstedt, K.		100%	Aerospace Corp.	2018-2020 (extensible for 3 years funding)	\$150,000