

Adriana Iamnitchi

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RESEARCH SUMMARY

Distributed systems, with emphasis on designing, implementing and experimenting with algorithms, services and applications for large-scale networked-systems. In particular: socially-aware distributed systems, system characterization for Grids and peer-to-peer networks, usage-aware resource management, data management in distributed scientific collaborations, social networks characterization, cloud computing.

EDUCATION

Ph.D. in Computer Science, University of Chicago	2003
M.Sc. in Computer Science, University of Chicago	1999
M.Sc. in Computer Science, Politehnica University of Bucharest, Romania	1996
B.Sc. in Computer Science, Politehnica University of Bucharest, Romania	1995

EMPLOYMENT

Associate Professor, Computer Science and Engineering, University of South Florida	since August 2011
Assistant Professor, Computer Science and Engineering, University of South Florida	2005–2011
Visiting Assistant Professor, Computer Science Department, Duke University	2004–2005
IT Consultant, Romsys Romania	1996–1997
Analyst Programmer, Val Informatique SRL, Romania	1994–1996

AWARDS AND HONORS

- NSF Faculty Early Career Development (CAREER) Award, 2010.
- Teaching Award, Department of Computer Science, University of Chicago, 2001 and 2002.
- Exceptional Contribution Award, Department of Computer Science, University of Chicago, 2002.

PUBLICATIONS (Available at <http://www.cse.usf.edu/~anda>)

Note:

- h-index: 20; g-index: 58; over 3,400 citations as returned by Google Scholar in October 2010.
- Co-authors who were students at USF at the time of the research effort are marked with *.
- The most important publications are shown with acceptance rate and/or number of citations.

Journal Articles (Refereed)

- [1] Adriana Iamnitchi, Jeremy Blackburn*, and Nicolas Kourtellis*. The Social Hourglass: an Infrastructure for Socially-aware Applications and Services. To appear in *IEEE Internet Computing, Special Issue on Infrastructure for Online Social Networking Systems*, May/June 2012.
- [2] Joshua Finnis*, Nalin Saigal*, Adriana Iamnitchi, and Jay Ligatti. A Location-based Policy-specification Language for Mobile Devices. To appear in *Pervasive and Mobile Computing Journal*. Online version posted in November 2010.

- [3] Adriana Iamnitchi, Matei Ripeanu, Elizeu Santos-Neto, Ian Foster. The Small World of File Sharing. *IEEE Transactions on Parallel and Distributed Systems*, Volume 22, Issue 7, pages 1120–1134, July 2011.
- [4] Juan M. Tirado, Daniel Higuero, Florin Isaila, Jesús Carretero, Adriana Iamnitchi. Affinity P2P: A Self-Organizing Content-Based Locality-Aware Collaborative Peer-to-Peer Network. *Computer Networks*, Volume 54, Issue 12, pages 2056–2070, Elsevier, August 2010.
- [5] Ann L. Chervenak, Robert Schuler, Matei Ripeanu, Muhammad Ali Amer, Ian Foster, Shishir Bharati, Adriana Iamnitchi, Carl Kesselman. The Globus Replica Location Service: Design and Experience. *IEEE Transactions on Parallel and Distributed Systems*, Volume 20, Issue 9, pages 1260–1272, September 2009.
- [6] Matei Ripeanu, Adriana Iamnitchi, Ian Foster, Anne Rogers. In Search of Simplicity: A Self-Organizing Group Communication Overlay. *Concurrency and Computation: Practice and Experience*, John Wiley & Sons, vol. 22(7), pp. 788–815, September 2009.
- [7] Adriana Iamnitchi, Shyamala Doraimani*, Gabriele Garzoglio. Workload Characterization in a High-Energy Data Grid and Impact on Resource Management. *Journal of Cluster Computing*, Volume 12, Issue 2, pages 153–173, Springer Netherlands, June 2009.
- [8] Samer Al-Kiswany, Matei Ripeanu, Adriana Iamnitchi, Sudharshan Vazhkudai. Beyond Music Sharing: An Evaluation of Peer-to-Peer Data Dissemination Techniques in Large Scientific Collaborations. *Journal of Grid Computing*, Volume 7, Issue 1, pages 91–114, Springer Netherlands, March 2009.
- [9] Matei Ripeanu, Adriana Iamnitchi, Ian Foster. Mapping the Gnutella Network: Properties of Large-Scale Peer-to-Peer Systems and Implications for System Design. *IEEE Internet Computing Special Issue on Peer-to-Peer Networking*, vol. 6(1), pages 50–57, February 2002. (915 citations)
- [10] Matei Ripeanu, Adriana Iamnitchi, Ian Foster. Performance Predictions for a Numerical Relativity Package in Grid Environments. *International Journal of High Performance Computing Applications*, vol. 15(4), pages 375–387, Winter 2001. (36 citations)

Conference Publications (Refereed)

- [11] Jeremy Blackburn*, Ramanuja Simha*, Nicolas Kourtellis*, Xiang Zuo*, Matei Ripeanu, John Skvoretz, and Adriana Iamnitchi. Branded with a Scarlet “C”: Cheaters in a Gaming Social Network. To appear in *WWW*, Lyon, France, April 2012. (acceptance rate 12%).
- [12] Nicolas Kourtellis*, Adriana Iamnitchi: Inferring Peer Centrality in Socially-Informed Peer-to-Peer Systems. In the *11th IEEE International Conference on Peer-to-Peer Computing (P2P)*, Kyoto, Japan, August 2011. (acceptance rate 30%)
- [13] Jeremy Blackburn*, Nicolas Kourtellis*, Adriana Iamnitchi: Vulnerability in Socially-Informed Peer-to-Peer Systems. In *Social Network Systems*, Salzburg, Austria, April 2011.
- [14] Tharaka Alahakoon*, Rahul Tripathi, Nicolas Kourtellis*, Ramanuja Simha*, Adriana Iamnitchi: K-Path Centrality: A New Centrality Measure in Social Networks. In *Social Network Systems*, Salzburg, Austria, April 2011.
- [15] Nicolas Kourtellis*, Joshua Finnis*, Paul Anderson*, Jeremy Blackburn*, Cristian Borcea, Adriana Iamnitchi. Prometheus: User-Controlled P2P Social Data Management for Socially-Aware Applications. In *Middleware 2010: Proceedings of the 11th ACM/IFIP/Usenix International Middleware Conference*, Bangalore, India, November 2010. (acceptance rate: 16%)
- [16] Steve Mardenfeld, Daniel Boston, Susan Juan Pan, Quentin Jones, Adriana Iamnitchi, Cristian Borcea. GDC: Group Discovery using Co-location Traces. In *SCA’10: Proceedings of the IEEE Symposium on Social Computing Applications*, Minneapolis, MN, August 2010. (acceptance rate: 15%)

- [17] Paul Anderson*, Nicolas Kourtellis*, Joshua Finnis*, Adriana Iamnitchi. On Managing Social Data for Enabling Socially-Aware Applications and Services. In *SNS'10: Proceedings of the 3rd Workshop on Social Network Systems*, Paris, France, April 2010.
- [18] Elizeu Santos-Neto, David Condon*, Nazareno Andrade, Adriana Iamnitchi, Matei Ripeanu. Individual and Social Behavior in Tagging Systems. In *HyperText'09: Proceedings of the 20th ACM Conference on Hypertext and Hypermedia*, Torino, Italy, June 2009. (acceptance rate: 32%, 14 citations)
- [19] Cristian Borcea, Adriana Iamnitchi. P2P Systems Meet Mobile Computing: A Community-Oriented Software Infrastructure for Mobile Social Applications. In *SelfMan'08: Proceedings of the Workshop on Decentralized Self Management for Grids, P2P, and User Communities*, Isola di San Servolo (Venice), Italy, October 2008.
- [20] Shyamala Doraimani*, Adriana Iamnitchi. File Grouping for Scientific Data Management: Lessons from Experimenting with Real Traces. In *HPDC'08: Proceedings of the 17th ACM/IEEE Symposium on High Performance Distributed Computing*, Boston, MA, June 2008. (acceptance rate: 17.5%, 11 citations)
- [21] Mayur Palankar*, Adriana Iamnitchi, Matei Ripeanu, Simson Garfinkel. Amazon S3 for Science Grids: a Viable Solution? In *DADC'08: Data-Aware Distributed Computing Workshop*, Boston, MA, June 2008. (80 citations)
- [22] Nicolas Kourtellis*, Lydia Prieto*, Adriana Iamnitchi, Gustavo Zarrate, Dan Fraser. Data Transfers in the Grid: Workload Analysis of Globus GridFTP. In *DADC'08: Proceedings of Data-Aware Distributed Computing Workshop*, Boston, MA, June 2008. (5 citations)
- [23] Elizeu Santos-Neto, Matei Ripeanu, Adriana Iamnitchi. Content Reuse and Shared Interest in Tagging Communities. In *AAAI 2008 Spring Symposia—Social Information Processing*, Stanford, CA, March, 2008.
- [24] Elizeu Santos-Neto, Matei Ripeanu, Adriana Iamnitchi. Tracking User Attention in Collaborative Tagging Communities. In *CAMA'07: Proceedings of the Workshop on Contextualized Attention Metadata*, Vancouver, Canada, June 2007. (19 citations)
- [25] Samer Al Kiswany, Matei Ripeanu, Adriana Iamnitchi, Sudarshan Vazhkudai. Are P2P Data-Dissemination Techniques Viable in Today's Data Intensive Scientific Collaborations? In *EuroPar'07: Proceedings of the European Conference on Parallel Computing*, Rennes, France, August 2007. (acceptance rate: 26%, 8 citations)
- [26] Matei Ripeanu, Adriana Iamnitchi, Ian Foster, Anne Rogers. In Search of Simplicity: A Self-Organizing Group Communication Overlay. In *SASO'07: Proceedings of the IEEE International Conference on Self-Adaptive and Self-Organizing Systems*, July 2007.
- [27] Lavanya Ramakrishnan, Jeffrey S. Chase, Laura Grit, Adriana Iamnitchi, David Irwin, Aydan Yumerefendi. Toward a Doctrine of Containment: Grid Hosting with Adaptive Resource Control. In *Supercomputing'06: Proceedings of the ACM/IEEE conference on Supercomputing*, Tampa, FL, USA, November 2006. (acceptance rate: 22%, 47 citations)
- [28] Adriana Iamnitchi, Shyamala Doraimani*, Gabriele Garzoglio. Filecules in High-Energy Physics: Characteristics and Impact on Resource Management. In *HPDC'06: Proceedings of the 15th ACM/IEEE Symposium on High Performance Distributed Computing*, Paris, France, June 2006. (acceptance rate: 15%, 26 citations)
- [29] Adriana Iamnitchi, Ian Foster. Interest-Aware Information Dissemination in Small-World Communities. In *HPDC'05: Proceedings of the 14th ACM/IEEE Symposium on High Performance Distributed Computing*, Raleigh, NC, USA, July 2005. (acceptance rate: 18%, 27 citations)

- [30] Adriana Iamnitchi, Matei Ripeanu, Ian Foster. Small-World File-Sharing Communities. In *INFOCOM'04: The 23rd Conference of the IEEE Communications Society*, Hong Kong, March 2004. (acceptance rate: 18%, 156 citations)
- [31] Ian Foster, Adriana Iamnitchi. On Death, Taxes, and the Convergence of Peer-to-Peer and Grid Computing. In *IPTPS'03: The 2nd International Workshop on Peer-to-Peer Systems*, Berkeley, CA, USA, February 2003. (acceptance rate: 16%, 511 citations)
- [32] Ann Chervenak, Ewa Deelman, Ian Foster, Leanne Guy, Wolfgang Hoschek, Adriana Iamnitchi, Carl Kesselman, Peter Kunst, Matei Ripeanu, Robert Schwartzkopf, Heinz Stockinger, Kurt Stockinger, Brian Tierney. Giggie: A Framework for Constructing Scalable Replica Location Services. In *Supercomputing'02: Proceedings of the ACM/IEEE conference on Supercomputing*, Baltimore, MD, USA, November 2002. (acceptance rate: 22%, 390 citations)
- [33] Kavitha Ranganathan, Adriana Iamnitchi, Ian Foster. Improving Data Availability through Dynamic Model-Driven Replication in Large Peer-to-Peer Communities. In *GP2PC'02: Proceedings of the Global and Peer-to-Peer Computing on Large Scale Distributed Systems Workshop*, Berlin, Germany, May 2002. (262 citations)
- [34] Adriana Iamnitchi, Matei Ripeanu, Ian Foster. Locating Data in (Small-World?) Peer-to-Peer Scientific Collaborations. In *IPTPS'02: The 1st International Workshop on Peer-to-Peer Systems*, Cambridge, MA, USA, March 2002. (acceptance rate: 31%, 132 citations)
- [35] Adriana Iamnitchi, Ian Foster. On Fully Decentralized Resource Discovery in Grid Environments. In *Grid'01: The 2nd International Workshop on Grid Computing*, Denver, CO, USA, November 2001. (272 citations)
- [36] Matei Ripeanu, Adriana Iamnitchi, Ian Foster. Cactus Application: Performance Predictions in Grid Environments. In *EuroPar'01: Proceedings of the European Conference on Parallel Computing*, Manchester, UK, August 2001. (39 citations)
- [37] Adriana Iamnitchi, Ian Foster. A Problem-Specific Fault-Tolerance Mechanism for Asynchronous, Distributed Systems. In *ICPP'00: Proceedings of the International Conference on Parallel Processing*, Toronto, Canada, August 2000. (45 citations)

Book Chapters, Invited Papers, and Editorials

- [38] Adriana Iamnitchi, Ian Foster. A Peer-to-Peer Approach to Resource Location in Grid Environments. Book chapter in J. Weglarz, J. Nabrzyski, J. Schopf, and M. Stroinski eds. *Grid Resource Management*, Kluwer Publishing, 2003.
- [39] Franck Cappello, Adriana Iamnitchi and Mitsuhsisa Sato. Editorial in *Special Issue on Global and Peer-to-Peer Computing, Journal of Grid Computing*, Volume 4, Number 3/September, 2006, 223-224, Springer Netherlands.
- [40] Matei Ripeanu, Ian Foster, Adriana Iamnitchi, Anne Rogers. A dynamically Adaptive, Unstructured Multicast Overlay. Invited paper to *Dagstuhl Seminar Proceedings: Service Management and Self-Organization in IP-based Networks*, 2005.
- [41] Adriana Iamnitchi and Domenico Talia. Editorial in *Special issue on Peer-to-Peer Computing and Interaction with Grids, Future Generation Computer Systems*, Volume 21, Issue 3, 1 March 2005, Pages 331-332, Elsevier. (23 citations)

Short Papers and Posters (Refereed)

- [42] Jeremy Blackburn*, Ramanuja Simha*, Clayton Long*, Xiang Zuo*, Nicolas Kourtellis*, John Skvoretz, Adriana Iamnitchi: Cheaters in a Gaming Metanetwork. In *HPDC/SIGMETRICS 2011 Student Posters*. San Jose, CA, June 2011. (Best Student Poster Award).

- [43] Nicolas Kourtellis*, Joshua Finnis*, Paul Anderson*, Jeremy Blackburn*, Adriana Iamnitchi. Prometheus: Distributed Management of Geo-Social Data. In *NDSI'10: the 7th USENIX Symposium on Networked Systems Design & Implementation*, San Jose, CA, April 2010 (poster).
- [44] Zach King*, Jeremy Blackburn*, Adriana Iamnitchi. BatTorrent: A Battery-Aware BitTorrent for Mobile Devices. In *UbiComp*, Orlando, FL, September 2009 (poster).
- [45] Nicolas Kourtellis*, Joshua Finnis*, Adriana Iamnitchi, Cristian Borcea. MobiDew: Socially-Aware Data Management for Mobile Users. In *HotMobile*, Santa Cruz, CA, February 2009 (poster).
- [46] Matei Ripeanu, Adriana Iamnitchi. S4: A Simple Storage Service for Sciences. In *HPDC'07: the 16th IEEE International Symposium on High Performance Distributed Computing*, Hot Topics Track, Monterey Bay, CA, June 2007 (short paper).
- [47] Mayur Palankar*, Ayodele Onibokun*, Adriana Iamnitchi, Matei Ripeanu. Amazon S3 for Science Grids: a Viable Solution? In *NSDI'07: the 4th USENIX Symposium on Networked Systems Design & Implementation*, Boston, MA, April 2007 (poster).
- [48] Piyush Shivam, Adriana Iamnitchi, Aydan Yumerefendi, and Jeff Chase. Model-Driven Placement of Compute Tasks and Data in a Networked Utility. *IEEE International Conference on Autonomic Computing (ICAC)*, July 2005 (short paper).
- [49] Adriana Iamnitchi, Ian Foster, Daniel C. Nurmi. A Peer-to-Peer Approach to Resource Location in Grid Environments. In *HPDC'02: Proceedings of the 11th Symposium on High Performance Distributed Computing*, Edinburgh, UK, August 2002. (short paper). (189 citations)

Participation in Art Festivals and Performances (with contributed software)

- [50] Tango Panopticon in *Electrosmog International Festival for Sustainable Immobility*, March 18, 2010. Art project and urban dance interventions initiated by artist Robert Lawrence. Collaborators: Michael Stillo*, Adriana Iamnitchi.
- [51] Tango Panopticon 2.0. May 1, 2010. Art interventions initiated by artist Robert Lawrence. Collaborators: Michael Stillo*, Adriana Iamnitchi.

FUNDING

- *CAREER: Socially-Aware Distributed Systems* (National Science Foundation). Adriana Iamnitchi (PI). NSF CNS-0952420. Project dates: 05/01/2010–04/30/2015. Amount: \$485,010.
- *Tango Panopticon* (College of Engineering Interdisciplinary Scholarship Program, University of South Florida). Adriana Iamnitchi and Robert Lawrence (Department of Art & Art History). Project dates: 03/2009–05/2010. Amount: \$15,000 (+\$5,000 matching funds from the College of The Arts).
- *Collaborative Research-ANET: Mobius: A Multi-Tier Socially-Aware Network Infrastructure* (National Science Foundation). Adriana Iamnitchi (PI), Jay Ligatti (co-PI), Cristian Borcea (PI at NJ Inst of Tech), and Quentin Jones (co-PI at NJ Inst of Tech). NSF NeTS awards CNS-0831785 (USF) and CNS-0831753 (NJIT). Project dates: 9/1/08–8/31/11. Amount: \$429,999 (USF) + \$409,978 (NJ Inst of Tech).
- *Ice Deposits in Caves: a Novel Paleoclimate Archive* (Interdisciplinary Research Grant, University of South Florida). Bogdan Onac (PI, USF Department of Geology), Jonathan Wynn (co-PI, USF Department of Geology), Adriana Iamnitchi (co-PI), Robert Lawrence (co-PI, USF Department of Art & Art History), Angelica Feurdean (co-PI, Oxford University), Norel Rimbu (co-PI, Alfred Wegener Institute). Project dates: 05/2008–04/2010. Amount: \$42,000.

- *CT-ISG: Collaborative Research: Trustworthy Enforcement of Domain-independent Run-time Policies* (National Science Foundation). Jay Ligatti (PI), Adriana Iamnitchi (co-PI), and Lujo Bauer (PI at Carnegie Mellon University). NSF CyberTrust awards CNS-0716343 (USF) and CNS-0716216 (CMU). Project dates: 8/1/07–7/31/10. Amount: \$300,000 (USF) + \$50,000 (CMU).
- *Terrain Analysis for Human-Robot Interaction* (Chi-Systems). Robin Murphy (PI), Adriana Iamnitchi (co-PI). Project dates: 01/2007–08/2007. Amount: \$107,000.
- *Usage-Aware Cache Management in Science Grids*, (New Researcher Grant, University of South Florida). Adriana Iamnitchi (PI). Project dates: 05/2006–04/2007. Amount: \$9,700.

TEACHING AND COURSE DEVELOPMENT

Instructor, University of South Florida

Basics of Parallel and Distributed Systems (<i>new</i> , graduate and undergraduate level)	Spring '09, '11
Operating Systems (graduate level)	Spring '08, '09, '10, '12
Internet-Scale Networked-Systems (<i>new</i> , graduate level)	Spring '08
Operating Systems (undergraduate level)	Spring'06, '07, Fall'07, '08, '10, '11
Federated Distributed Systems (<i>new</i> , graduate level)	Fall '05, '06
Terrain Analysis for Human-Robot Interaction (<i>new</i> , seminar, graduate level)	Spring '07
Distributed Systems (<i>new</i> , seminar, graduate level)	Spring '07

Invited Lecturer, Universidad Carlos III de Madrid, Departamento de Informatica

Peer-to-Peer Systems, Grid and Cloud Computing: Real-life Instances of Distributed Systems (graduate level)	8-hour seminar March 2009
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Instructor, Duke University

Federated Distributed Systems (graduate level)	Fall 2004
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Teaching Assistant, University of Chicago

1998–2002

Algorithms; Practicum in Distributed Objects; Advanced Object Oriented Design & Development; Unix Systems Programming; Networks; Large-Scale Networked Systems (all at graduate level).

Teaching Assistant, Politehnica University of Bucharest, Romania

Formal Languages (undergraduate level)	Spring 1996
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RESEARCH SUPERVISION

Current PhD students:

- Nicolas Kourtellis (since 2006, passed qualifiers)
- Jeremy Blackburn (since 2010, passed qualifiers)
- Xiang Zuo (since 2010)
- Imrul Kayes (since 2011)

Graduated MS students (with thesis):

- Justin Bailey. Live Video Streaming from Android Devices to Web Browsers, MS Thesis, University of South Florida, December 2011.
- Paul Anderson. GeoS: A Service for the Management of Geo-Social Information in a Distributed System, MS Thesis, University of South Florida, August 2010. Work published in [17, 15].
- Michael Stillo. Tango Panopticon: Developing a Platform for Supporting Live Synchronous Art Events Based in Relational Aesthetics, MS Thesis, University of South Florida, August 2010. Work resulted in live art performances [50, 51].
- Shyamala Doraimani. Filecules: a New Granularity for Resource Management in Grids, MS Thesis, University of South Florida, May 2007. Work published in [7, 20, 28].

VISITING RESEARCHER

- Universidad Carlos III de Madrid, Spain, July 2008. Resulted published work: [4].
- Argonne National Laboratory, June–August 2007. Resulted published work: [22].

INVITED TALKS

- *Enabling Socially-Aware Distributed Systems.*
 - University of Chicago, February 2011.
 - Boston University, September 2010.
 - INRIA Saclay-Ile de France, Laboratoire de Recherche en Informatique, Université Paris-Sud, June 2010.
 - INRIA Paris Rocquencourt, June 2010.
- *Filecules and Small Worlds in Scientific Communities: Characteristics and Significance*
 - Universidad Carlos III de Madrid, Departamento de Informatica, July 2008.
 - New Jersey Institute of Technology, Department of Computer Science, February 2007.
- *Filecules and Small Worlds in the DZero Workload: Characteristics and Relevance for Data Management,* Fermi National Accelerator Laboratory, August 2007
- *What do scientists & peer-to-peer users have in common? Usage Patterns in Distributed System.* DePaul University CTI Women in Science Event, Chicago, July 2007.
- *Amazon S3 for Science Grids: When Simple is Expensive,* Distributed Systems Laboratory Workshop, Department of Computer Science, University of Chicago, May 2007.
- *Exploiting Small-World Usage Patterns in File-Sharing Communities*
 - University of Florida, October 2005.
 - Microsoft Research (Silicon Valley), December 2004.
 - University of North Carolina at Chapel-Hill, November 2004.
- *On the Convergence of Peer-to-Peer and Grid Computing,* Winter 2004 Joint Techs/APAN (Asia Pacific Advanced Network Consortium), Honolulu, Hawaii, January 2004.
- *Capabilities of P2P that Grids Should Exploit: Looking at Deployed Systems,* Peer-to-Peer and Grids: Synergies and Opportunities Workshop at Global Grid Forum (GGF9), Chicago, October 2003.
- *Locating Data in (Small-World?) Peer-to-Peer Scientific Collaborations*
 - INRIA Saclay-Ile de France, Laboratoire de Recherche en Informatique, Université de Paris-Sud, June 2002.
 - Fermi National Accelerator Laboratory, August 2002.
- *Centralized vs. Decentralized Design for Internet Applications,* The Workshop on Internet-scale Software Technologies (TWIST 2000), Irvine, CA, July 2000.

PROFESSIONAL SERVICE**Guest editor for:**

- Special Issue on Global and Peer-to-Peer Computing, Journal of Grid Computing (Springer Netherlands), September 2006.
- Special Issue on Peer-to-Peer Computing and Interaction with Grids, Future Generation Computer Systems (Elsevier), March 2005.

Program chair for:

- Workshop on Social Media Processing (SocMP) 2012.
- EuroPar 2010, Peer-to-Peer Topic.
- International Workshop on Peer-to-Peer Systems (IPTPS) 2008.
- Workshop on Global and Peer-to-Peer Computing (GP2PC) 2004, 2005 and 2006.

NSF panelist 2007, 2008, 2009, 2010.

Participant in the NSF/EU workshop Focus on Future Directions of Pervasive Computing and Social Networking and their Adaption to Emerging Applications, Mannheim, Germany, March 2010.

Organizer of the Grid@Duke workshop – a forum of grid leaders and Duke scientists aimed at exploring the opportunities that grid technologies can bring to the Duke research community.

Technical Program Committee Member for:

- IEEE P2P 2012
- International Symposium on Stabilization, Safety, and Security of Distributed System (SSS), Social Networks track, 2012
- International Conference on Computing Communication Networks (ICCCN), Network Science and Social Networks track 2012
- International Conference on Contemporary Computing (IC3), Systems Track, 2011
- Supercomputing 2011, Cloud Computing track
- International ACM Symposium on High Performance Distributed Computing (HPDC) 2011, 2012
- DataCloud Workshop 2011
- WWW 2010
- Supercomputing 2010, Cloud Computing track
- EuroPar, Peer-to-Peer Topic vice-chair 2009
- International Conference on High Performance Computing and Communications (HPCC) 2009
- International Conference on Distributed Computing Systems (ICDCS) 2007, 2009
- International Heterogeneity in Computing Workshop (HCW) 2008, 2009
- International Workshop on Peer-to-Peer Systems (IPTPS) 2007, 2009
- Workshop on Large-Scale System and Application Performance (LSAP) 2009
- Decentralized Self-Management for Grids, P2P, and User Communities (Selfman) 2008
- Data-Aware Distributed Computing workshop (DADC) 2008
- International Workshop on Middleware for Grid Computing 2006
- Supercomputing 2006
- GridNets 2006
- International Conference on Grid Computing (Grid) 2006, 2007
- Modeling and Simulation of P2P networks 2006
- International Conference on Parallel Processing (ICPP) 2004, 2005, 2006
- International Conference On Principles Of Distributed Systems (OPODIS) 2004
- Workshop on Global and Peer-to-Peer Computing (GP2PC) 2003, 2008.

Referee for IEEE Transactions in Parallel and Distributed Systems, IEEE/ACM Transactions on Networking, IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Systems, Man, and Cybernetics, ACM Computing Surveys, Computer Networks, Journal of Parallel Computing (Elsevier), International Parallel and Distributed Processing Symposium (IPDPS).

Reviewer for grant funding programs such as Kentucky Science and Engineering Foundation, and research funding programs of Sweden, Israel, The Netherlands, and Austria.