

# Patrick Thomas Eugster

## Curriculum Vitae

June 29, 2016

Purdue University  
Department of Computer Science  
305 N. University Street  
West Lafayette, IN 47907, USA  
Nationality: US & Swiss

EMAIL: [p@cs.purdue.edu](mailto:p@cs.purdue.edu)  
PHONE: +1 765 494 6015  
FAX: +1 765 494 0739  
SKYPE: [patrickeugster](https://www.skype.com/user/patrickeugster)  
GTALK: [patrick.eugster](https://plus.google.com/u/0/patrick.eugster)

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### Research Interests

**Systems:** Large-scale, dynamic, and mobile distributed systems; cyberphysical systems and IoT; software-defined networking; fault tolerance and security; middleware. **Software and programming:** Abstractions and methodologies for distributed software development; program analysis; type systems; runtime systems.

### Positions

<b>Full Professor (ad personam)</b> Computer Science, Technical University of Darmstadt, Germany	7/2014 - present
<b>Chief Science Officer</b> SensorHound, West Lafayette, USA	12/2012 - present
<b>Visiting Faculty</b> Computer Science and Artificial Intelligence Laboratory, MIT, USA	10/2012 - 6/2013
<b>Associate Professor</b> Computer Science, Purdue University, USA	7/2012 - present
<b>Visiting Faculty</b> Computer Science, Technical University of Darmstadt, Germany	5/2012 - 8/2012
<b>Visiting Faculty</b> Computer Science, Technical University of Darmstadt, Germany	5/2011 - 8/2011
<b>Consultant</b> Institute for Defense Analyses, Washington DC, USA	4/2011 - present
<b>Assistant Professor</b> Computer Science, Purdue University, USA	12/2005 - 7/2012
<b>Research Associate</b> Computer Science, Swiss Federal Institute of Technology in Zürich, Switzerland	4/2005 - 11/2005
<b>Senior Software Architect</b> Software Solutions, Sun Microsystems (now Oracle Co.), Zürich, Switzerland	1/2004 - 3/2005
<b>Research Associate</b> Computer Science, Swiss Federal Institute of Technology in Lausanne, Switzerland	12/2002 - 12/2003
<b>Postdoctoral Researcher</b> Computer Science, Chalmers University of Technology, Göteborg, Sweden	4/2002 - 11/2002

## Education

<b>Ph.D. in Computer Science</b>	12/2001
Swiss Federal Institute of Technology Lausanne, Switzerland	
Dissertation title: <i>Type-based Publish/Subscribe</i> Advisor: Rachid Guerraoui	
<b>M.S. in Computer Science</b>	3/1998
Swiss Federal Institute of Technology Lausanne, Switzerland	
Dissertation title: <i>Passive Replication in CORBA</i> Advisor: André Schiper	

## Awards, Fellowships, and Honors

<b>Purdue Innovator Hall of Fame</b> Induction (30th inductee)	2014
Purdue University	
<b>NetApp Faculty Fellowship</b>	2014
NetApp University Fund	
<b>Graduate Student Mentoring Award</b>	2014
College of Science, Purdue University	
<b>Engagement Award</b>	2014
College of Science, Purdue University	
<b>ERC Consolidator Award</b>	2013
European Research Council	
<b>Google Research Award</b>	2013
Google	
<b>Professional Achievement Award</b>	2012
College of Science, Purdue University	
<b>Experienced Researcher Fellowship</b>	2011
Alexander von Humboldt Foundation, Germany	
<b>Computer Science Study Group</b> Induction	2011
Defense Advanced Research Projects Agency (DARPA), USA	
<b>Undergraduate Student Advising Award</b>	2010
College of Science, Purdue University	
<b>Best Paper Award</b>	2010
ACM / USENIX / IFIP Middleware	
<b>NSF CAREER Award</b>	2006
US National Science Foundation	
<b>Advanced Researcher Fellowship</b>	2002
Swiss National Science Foundation	
<b>Postdoctoral Researcher Fellowship</b>	2002
Swedish Research Council	
<b>Prize of Excellence for an Exceptional Research Contribution</b>	2001
Swiss Federal Institute of Technology Lausanne	
<b>Best Student Paper Award</b>	2001
USENIX COOTS	
<b>Prize of Excellence for an Exceptional Teaching Contribution</b>	1998
Swiss Federal Institute of Technology Lausanne	

# 1 Funding

- [G1] Program Analysis for Security and Privacy of Embedded Devices  
*Purdue Research Foundation*  
Duration of Funding: 6/1/2016 - 5/31/2017  
Total Amount of Award: \$30'000  
Role: Co-PI  
Percentage of funding responsible: 50%
- [G2] Center for Research in Security and Privacy Darmstadt  
*German Ministry for Education and Research*  
Duration of Funding: 7/1/2016 - 6/30/2019  
Total Amount of Award: \$3.5Mio  
Role: co-PI  
Percentage of funding responsible: 10%
- [G3] Secure Cloud-based Multi-Party Computing  
*Northrop Grumman – Cybersecurity Research Consortium*  
Duration of Funding: 10/1/2015 - 9/30/2016  
Total Amount of Award: \$150'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G4] Energy-Efficient Development of the Lichtwiese Campus through Smart System Integration  
*Project Management Jülich*  
Duration of Funding: 1/1/2016 - 6/31/2018  
Total Amount of Award: \$1Mio  
Role: Co-PI  
Percentage of funding responsible: 25%
- [G5] Programming with Non-Volatile Memory  
*HP Labs*  
Duration of Funding: 10/1/2015 - 9/30/2016  
Total Amount of Award: \$25'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G6] Resource-Efficient Remote Monitoring and Diagnostics for Cyber-Physical Systems  
*US National Science Foundation – Small Business Innovation Research*  
Duration of Funding: 10/1/2015 - 9/30/2017  
Total Amount of Award: \$750'000 (Phase II follow-up to [G12],[G14])  
Role: Chief Science Officer of awarded company <sup>1</sup>  
Percentage of funding responsible: 50%

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<sup>1</sup>Not reflected in [www.fastlane.nsf.org](http://www.fastlane.nsf.org) as NSF prohibits Co-PIs officially on SBIR grants.

- [G7] Multi-Mechanism Adaptation for the Future Internet  
*German Research Foundation – Collaborative Research Center*  
Duration of Funding: 1/1/2013 - 12/31/2016  
Total Amount of Award: \$12Mio  
Role: Associated investigator  
Percentage of funding responsible: 2%
- [G8] Assured Cloud-based Data Analysis  
*Cisco Systems Inc.*  
Duration of Funding: 1/1/2015 - 6/30/2015  
Total Amount of Award: \$100'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G9] Secure Online Big Data Processing  
*Northrop Grumman – Cybersecurity Research Consortium*  
Duration of Funding: 10/1/2014 - 9/30/2015  
Total Amount of Award: \$150'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G10] Practical Assured Big Data Analysis in the Cloud  
*US National Science Foundation – Secure and Trustworthy Cyberspace*  
Duration of Funding: 9/1/2014 - 8/31/2017  
Total Amount of Award: \$450'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G11] Federated Big Data Processing  
*NetApp University Fund*  
Duration of Funding: 8/15/2014 - 8/14/2015  
Total Amount of Award: \$ 45'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G12] Resource-Efficient Remote Monitoring and Diagnostics for Cyber-Physical Systems  
*US National Science Foundation – Small Business Innovation Research*  
Duration of Funding: 7/1/2014 - 9/31/2014  
Total Amount of Award: \$50'000 (Phase Ib follow-up for [G14])  
Role: Chief Science Officer of awarded company<sup>1</sup>  
Percentage of funding responsible: 50%
- [G13] Lightweight Verification of Distributed Software  
*European Research Council*  
Duration of Funding: 7/1/2014 - 6/31/2019  
Total Amount of Award: \$2'600'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%

- [G14] Resource-Efficient Remote Monitoring and Diagnostics for Cyber-Physical Systems  
*US National Science Foundation – Small Business Innovation Research*  
Duration of Funding: 1/1/2014 - 6/31/2014  
Total Amount of Award: \$150'000  
Role: Chief Science Officer of awarded company<sup>1</sup>  
Percentage of funding responsible: 50%
- [G15] Assured Cloud-based Data Analysis  
*Northrop Grumman – Cybersecurity Research Consortium*  
Duration of Funding: 9/1/2013 - 8/31/2014  
Total Amount of Award: \$300'000 (includes matching funds from DARPA [G20])  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G16] A Fog Architecture  
*Cisco Systems Inc.*  
Duration of Funding: 7/1/2013 - 6/30/2014  
Total Amount of Award: \$100'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G17] Geo-Distributed Big Data Processing  
*Google Research*  
Duration of Funding: 3/1/2013 - 2/28/2014  
Total Amount of Award: \$60'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G18] Assured Cloud-based Computing  
*Northrop Grumman – Cybersecurity Research Consortium*  
Duration of Funding: 8/15/2012 - 8/14/2013  
Total Amount of Award: \$200'000 (includes matching funds from DARPA [G19])  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G19] Matching Networks  
*Purdue Research Foundation*  
Duration of Funding: 8/1/2012 - 7/31/2013  
Total Amount of Award: \$50'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G20] Large-Scale Cloud-based Data Analysis  
*Defense Advanced Research Projects Agency (DARPA)*  
Duration of Funding: 4/20/2012 - 4/19/2012/2015  
Total Amount of Award: \$400'000 (plus \$250'000 matching funds, cf. [G13], [G16])  
Role: PI (single investigator)  
Percentage of funding responsible: 100%

- [G21] Least Privilege Enforcement through Secure Memory Views  
*US National Science Foundation – Secure and Trustworthy Computing*  
Duration of Funding: 8/15/2011 - 8/14/2014  
Total Amount of Award: \$500'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G22] Event-Oriented Software Development  
*Defense Advanced Research Projects Agency (DARPA)*  
Duration of Funding: 4/20/2011 - 4/19/2012  
Total Amount of Award: \$100'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G23] Seamless Cloud Computing  
*Purdue Research Foundation*  
Duration of Funding: 8/1/2010 - 7/31/2011  
Total Amount of Award: \$50'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G24] Memory Management Innovations for Next-Generation SMP  
*US National Science Foundation – Computer Networks and Systems*  
Duration of Funding: 9/1/2008 - 8/31/2012  
Total Amount of Award: \$300'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%
- [G25] A Holistic Approach to Reliable Pervasive Systems  
*US National Science Foundation – Computer Networks and Systems*  
Duration of Funding: 9/1/2008 - 8/31/2012  
Total Amount of Award: \$400'000  
Role: PI (co-PI X. Zhang)  
Percentage of funding responsible: 50%
- [G26] Pervasive Programming with Event Correlation  
*US National Science Foundation – Computer Networks and Systems (CAREER)*  
Duration of Funding: 8/1/2007 - 12/31/2012  
Total Amount of Award: \$400'000  
Role: PI (single investigator)  
Percentage of funding responsible: 100%

## 2 Publications

### Journal Articles

- [J1] K. Kogan, S. Nikolenko, O. Rottenstreich, W. Culhane, and P. Eugster. Exploiting Order-independence for Scalable and Expressive Packet Classification. *ACM/IEEE Transactions on Networks (TON)*, to appear 2015.

- [J2] K.R. Jayaram, W. Wang, and P. Eugster. Subscription Normalization for Effective Content-based Messaging. *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, 26(11): 3184–3193, 2015.
- [J3] G.A. Wilkin, K.R. Jayaram, and P. Eugster. Decentralized Fault Tolerant Event Correlation. *ACM Transactions on Internet Technology (TOIT)*, 14(1): 5, 2014.
- [J4] C. Jayalath, J. Stephen, and P. Eugster. Universal Cross-Cloud Communication. *IEEE Transactions on Cloud Computing (TCC)*, 2(2): 103–116, 2014.
- [J5] C. Jayalath, J. Stephen, and P. Eugster. From the Cloud to the Atmosphere: Running MapReduce across Datacenters. *IEEE Transactions on Computers (TC)*, 63(1): 74–87, 2014.
- [J6] G.A. Wilkin and P. Eugster. Multicasting in the Presence of Aggregated Deliveries. *Journal of Parallel and Distributed Computing (JPDC)*, Elsevier, 73(4): 544–556, 2013.
- [J7] K.J. Hoffman and P. Eugster. Trading Obliviousness for Modularity with Co-operative Aspect-Oriented Programming. *ACM Transactions on Software Engineering and Methodology (TOSEM)*, 22(3): 22, 2013.
- [J8] V. Sundaram, P. Eugster, and X. Zhang. Diagnostic Tracing for Wireless Sensor Networks. *ACM Transactions on Sensor Networks (TOSN)*, 9(4): 1–41, 2013.
- [J9] K.R. Jayaram, P. Eugster, and C. Jayalath. Parametric Content-based Publish/Subscribe. *ACM Transactions on Computer Systems (TOCS)*, 31(2): Article 4, 2013.
- [J10] A. Holzer, P. Eugster, and B. Garbinato. Evaluating Implementation Strategies for Location-based Multicast Addressing. *IEEE Transactions on Mobile Computing (TMC)*, 12(5): 855–867, 2013.
- [J11] P. Eugster. Safe Uniform Proxies. *Science of Computer Programming (SCP)*, Elsevier, 78(9): 1490–1520, 2013.
- [J12] K.C. Swaminathan, M. Qudeisat, L. Ziarek, K. Nagaraj, and P. Eugster. Efficient Distributed Sessions. *Science of Computer Programming (SCP)*, Elsevier, 78(2): 147–167, 2013.
- [J13] A. Holzer, P. Eugster, and B. Garbinato. ALPS – Adaptive Location-based Publish/Subscribe. *Computer Networks*, Elsevier, 56(12): 2949–2962, 2012.
- [J14] A. Holzer, L. Ziarek, K.R. Jayaram, and P. Eugster. Abstracting Context in Event-based Systems. *Transactions on Aspect-Oriented Software Development (TAOSD)*, Springer, volume 9: 123–167, 2012.
- [J15] A. Kangarlou, P. Eugster, and D. Xu. VNSnap: Taking Snapshots of Virtual Networked Environments in the Cloud. *IEEE Transactions on Services Computing (TSC)*, 5(4): 484–496, 2012.
- [J16] K.J. Hoffman and P. Eugster. Co-operative Aspect-Oriented Programming. *Science of Computer Programming (SCP)*, Elsevier, 74(5-6): 333–354, 2009.
- [J17] A. Leitner, P. Eugster, M. Oriol, and I. Ciupa. Reflecting on an Existing Programming Language. *Journal of Object Technology (JOT)*, 6(9): 319–329, 2007.
- [J18] P. Eugster. Type-based Publish/Subscribe: Concepts and Experiences. *ACM Transactions on Programming Languages and Systems (TOPLAS)*, 29(1), 2007.
- [J19] P. Eugster and S. Vaucouleur. Composing Atomic Features. *Science of Computer Programming (SCP)*, Elsevier, volume 63: 130–146, 2006.
- [J20] J. Luo, J.-P. Hubaux, and P. Eugster. DICTATE: Distributed Certification Authority with Probabilistic Freshness for Ad-hoc Networks. *IEEE Transactions on Dependable and Secure Computing (TDSC)*, 2(4): 311–323, 2005.

- [J21] P. Eugster and S. Baehni. Object-Oriented Programming in Peer-to-Peer Systems. *Concurrency and Computation: Practice and Experience (CCPE)*, Wiley & Sons, 17(7-8): 1053–1078, 2005.
- [J22] J. Luo, P. Eugster, and J.-P. Hubaux. Probabilistic Reliable Multicast in Ad-hoc Networks. *Ad Hoc Networks*, Elsevier, 2(4): 369–386, 2004.
- [J23] J. Luo, P. Eugster, and J.-P. Hubaux. Pilot: A Probabilistic Group Communication System for Ad-hoc Networks. *IEEE Transactions on Mobile Computing (TMC)*, 3(2): 164–179, 2004.
- [J24] P. Eugster, R. Guerraoui, S.B. Handurukande, A.-M. Kermarrec, and P. Kouznetsov. Lightweight Probabilistic Broadcast. *ACM Transactions on Computer Systems (TOCS)*, 21(4): 341–374, 2003.
- [J25] P. Eugster, P. Felber, R. Guerraoui, and A.-M. Kermarrec. The Many Faces of Publish/Subscribe. *ACM Computing Surveys (CSUR)*, 35(2): pages 114–131, 2003.
- [J26] P. Eugster, R. Boichat, R. Guerraoui, and J. Sventek. Effective Multicast in Large-Scale Distributed Systems. *Concurrency and Computation: Practice and Experience (CCPE)*, Wiley & Sons, 13(6): 421–447, 2001.
- [J27] R. Guerraoui, P. Eugster, P. Felber, B. Garbinato, and K. Mazouni. Experiences with Object Group Systems. *Software: Practice and Experience (SPE)*, Wiley & Sons, 30(12): 1375–1404, 2000.

## Magazine Articles

- [M1] P. Eugster, V. Sundaram, and X. Zhang. Debugging the Internet of Things – The Case of Wireless Sensor Networks. *IEEE Software – Special Issue on Internet Computing and Beyond*, 32(1): 38-49, January/February 2015.
- [M2] G. Salvaneschi, P. Eugster, and M. Mezini. Programming with Implicit Flows. *IEEE Software (Special Issue on New Directions in Programming Languages)*, 31(5): 52-59, October 2014.
- [M3] P. Eugster, P. Felber, and F. LeFessant. The “Art” of Programming Gossip-based Systems. *ACM Operating Systems Reviews*, 41(5): 37–42, October 2007.
- [M4] P. Eugster, R. Guerraoui, L. Massoulié, and A.-M. Kermarrec. Epidemic Information Dissemination in Distributed Systems. *IEEE Computer*, 37(5): 60–67, May 2004.
- [M5] P. Eugster and R. Guerraoui. Distributed Programming with Typed Events. *IEEE Software*, 21(2): 56–64, March/April 2004.

## Full Length Articles Refereed in Conference Proceedings

- [C1] W. Wang, Y. Zheng, X. Xing, Y. Kwon, X. Zhang, and P. Eugster. WebRanz: Web Page Randomization For Better Advertisement Delivery and Web-Bot Prevention. In *24th ACM SIGSOFT International Symposium on the Foundations of Software. Engineering (FSE 2016)*, November, 2016.
- [C2] . Wang, Y. Zheng, P. Liu, L. Xu, X. Zhang, and P. Eugster. ARROW: Automated Repair of Races on Client-Side Web Pages. The *2016 International Symposium on Software Testing and Analysis (ISSTA 2016)*, July 2016.
- [C3] T.-C. Chen, M. Viering, A. Bejleri, L. Ziarek, P. Eugster. A Type Theory for Robust Failure Handling in Distributed Systems. In *36th Formal Techniques for Distributed Objects, Components, and Systems (FORTE 2016)*, June 2016.
- [C4] A. Bejleri, M. Mezini, and P. Eugster. Cooperative Decoupled Processes: the E-Calculus and Linearity. In *15th International Conference on Modularity (MODULARITY 2016)*, March 2016.



- [C5] K. Kogan, D. Menikkumbura, G. Petri, Y. Noh, S. Nikolenko, and P. Eugster. BASEL (Buffer mAnagement SpEcification Language). In *12th ACM/IEEE Symposium on Architectures for Networking and Communications Systems (ANCS 2016)*, March 2016.
- [C6] A. Frömmgen, J. Heuschkel, P. Jahnke, F. Cuzzo, I. Schweizer, P. Eugster, M. Mühlhäuser, A. Buchmann. Crowdsourcing Measurements of Mobile Network Performance and Mobility during a Large Scale Event. In *17th International Conference on Passive and Active Measurement (PAM 2016)*, March 2016.
- [C7] P. Eugster, A. Kesselman, K. Kogan, S. Nikolenko, and A. Sirotkin. Essential Traffic Parameters for Shared Memory Switch Performance. In *22nd International Colloquium on Structural Information and Communication Complexity (SIROCCO 2015)*, July 2015.
- [C8] M. TanCreti, V. Sundaram, S. Bagchi, and P. Eugster. TARDIS: Software-Only System-Level Record and Replay in Wireless Sensor Networks. In *14th ACM/IEEE Conference on Information Processing in Sensor Networks (IPSN 2015)*, May 2015.
- [C9] W. Culhane, C. Jayalath, K. Kogan, and P. Eugster. Optimal Communication Structures for Big Data Aggregation. In *IEEE INFOCOM 2015 Conference*, April 2015. **(315/1640 = 19% acceptance ratio for full papers)**
- [C10] W. Culhane, K.R. Jayaram, and P. Eugster. Fast Expressive Top- $k$  Matching. In *15th ACM / IFIP / USENIX International Middleware Conference (Middleware 2014)*, December 2014. **(27/144 = 18.9% acceptance ratio for full papers)**
- [C11] J. Stephen, S. Savvides, R. Seidel, and P. Eugster. Program Analysis for Secure Big Data Processing. In *29th IEEE/ACM International Conference on Automated Software Engineering (ASE 2014)*, September 2014. **(47/337 = 13.9% acceptance ratio for full papers)**
- [C12] K. Kogan, S. Nikolenko, P. Eugster, and E. Ruan. Strategies for Mitigating TCAM Space Bottlenecks. In *22nd IEEE Annual Symposium on High Performance Interconnects (HotInterconnects 2014)*, August 2014.
- [C13] K. Kogan, S. Nikolenko, O. Rottenstreich, W. Culhane, and P. Eugster. SAX-PAC: Scalable And eXpressive PAcKet Classification. In *ACM SIGCOMM 2014 Conference on Applications, Technologies, Architectures, and Protocols for Computer Communications (SIGCOMM 2014)*, August 2014. **(45/242 = 18,6% acceptance ratio for full papers)**
- [C14] P. Eugster, K. Kogan, S. Nikolenko, and A. Sirotkin. Shared-Memory Buffer Management for Heterogeneous Packet Processing. In *34th IEEE International Conference on Distributed Computing Systems (ICDCS 2014)*, June 2014. **(66/500 = 13.2% acceptance ratio for full papers)**
- [C15] D. Alistar, P. Eugster, M. Herlihy, A. Matveev, and N. Shavit. StackTrack: An Automated Transactional Approach to Concurrent Memory Reclamation. In *European Conference on Computer Systems 2014 (EuroSys 2014)*, April 2014. **(27/147 = 18.4% acceptance ratio for full papers)**
- [C16] A. Dixit, K. Kogan, and P. Eugster. Serial Composition of Heterogeneous Control Planes. In *4th Open Network Summit (ONS 2014)*, March 2014.
- [C17] J. Stephen and P. Eugster. Assured Cloud-based Data Analysis with ClusterBFT. In *14th ACM / IFIP / USENIX International Middleware Conference (Middleware 2013)*, December 2013. **(24/128 = 18.8% acceptance ratio for full papers)**
- [C18] C. Jayalath, J. Stephen, and P. Eugster. Atmosphere: A Universal Cross-Cloud Communication Infrastructure. In *14th ACM / IFIP / USENIX International Middleware Conference (Middleware 2013)*, December 2013. **(24/128 = 18.8% acceptance ratio for full papers)**

- [C19] T. Freudenreich, P. Eugster, S. Frischbier, S. Appel, and A. Buchmann. Implementing Federated Object Systems. In *27th European Conference on Object Oriented Programming (ECOOP 2013)*, July 2013. **(29/116 = 25.0% acceptance ratio for full papers)**
- [C20] C. Jayalath and P. Eugster. Efficient Geo-Distributed Data Processing with Rout. In *33rd International Conference on Distributed Computing Systems (ICDCS 2013)*, July 2013. **(61/464 = 13.1% acceptance ratio for full papers)**
- [C21] V. Sundaram, P. Eugster, and X. Zhang. Lightweight Message Tracing for Wireless Sensor Network Diagnostics. In *43rd IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2013)*, June 2013. **(21/107 = 19.6% acceptance ratio for full papers)**
- [C22] S. Frischbier, A. Margara, T. Freudenreich, P. Eugster, D. Eyers, and P. Pietzuch. Aspects for Implicit Invocations. In *12th International Conference on Aspect-Oriented Software Development (AOSD 2013)*, March 2013. **(17/62 = 27.4% acceptance ratio for full papers; accepted in 1 round)**
- [C23] V. Sundaram, P. Eugster, and X. Zhang. Prius: Generic Hybrid Trace Compression for Wireless Sensor Networks. In *10th ACM Conference on Embedded Networked Sensor Systems (SenSys 2012)*, November 2012. **(23/123 = 18.7% acceptance ratio for full papers.)**
- [C24] G.A. Wilkin, K.R. Jayaram, P. Eugster, and A. Khetrapal. Fair Decentralized Event Correlation with FAIDECs. In *12th ACM / IFIP / USENIX International Middleware Conference (Middleware 2011)*, December 2011. **(22/125 = 17.6% acceptance ratio for full papers.)**
- [C25] K.J. Hoffman, H. Metzger, and P. Eugster. Ribbons: A Partially Shared Memory Programming Model. In *26th ACM Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA 2011)*, October 2011. **(61/166 = 36.74% acceptance ratio for full papers.)**
- [C26] K.R. Jayaram and P. Eugster. Program Analysis for Distributed Event-based Systems. In *5th ACM International Conference on Distributed Event-based Systems (DEBS 2011)*, July 2011. **(24/154 = 15.6% acceptance ratio for full papers.)**
- [C27] K. Lee, N. Sumner, X. Zhang, and P. Eugster. Unified Distributed Debugging with Recon. In *41st Annual IEEE / IFIP International Conference on Dependable Systems and Networks (DSN 2011)*, June 2011. **(26/148 = 17.6% acceptance ratio for full papers.)**
- [C28] K.R. Jayaram and P. Eugster. Split and Subsume: Subscription Normalization for Effective Content-based Messaging. In *31st International Conference on Distributed Computing Systems (ICDCS 2011)*, June 2011. **(87/565 = 15.4% acceptance ratio for full papers.)**
- [C29] A. Holzer, L. Ziarek, K.R. Jayaram, and P. Eugster. Putting Events in Context Aspects for Event-based Distributed Programming. In *10th International Conference on Aspect-Oriented Software Development (AOSD 2011)*, March 2011. **(9/42 = 21.4% acceptance ratio for full papers in first round.)**
- [C30] K.R. Jayaram, C. Jayalath, and P. Eugster. Parametric Subscriptions for Content-based Publish/Subscribe Networks. In *11th ACM / IFIP / USENIX International Middleware Conference (Middleware 2010)*, November 2010. **(19/116 = 16.4% acceptance ratio for full papers.)** Awarded best paper.
- [C31] V. Sundaram, P. Eugster, and X. Zhang. Efficient Diagnostic Tracing Support for Wireless Sensor Networks. In *8th ACM Conference on Embedded Networked Sensor Systems (SenSys 2010)*, November 2010. **(25/145 = 17.2% acceptance ratio for full papers.)**
- [C32] B. Xin, P. Eugster, X. Zhang, and J. Yang. Lightweight Task Graph Inference for Distributed Applications. In *29th IEEE Symposium on Reliable Distributed Systems (SRDS 2010)*, October 2010. **(21/93 = 22.5% acceptance ratio for full papers.)**

- [C33] K.R. Jayaram and P. Eugster. Scalable Efficient Event Correlation. In *12th International Conference on Coordination Models and Languages (COORDINATION 2010)*, June 2010. **(10/37 = 27.0% acceptance ratio for full papers.)** Runner-up for Principles Award of Event Processing Technical Society (EPTS).
- [C34] K.C. Sivaramakrishnan, K. Nagaraj, L. Ziarek, and P. Eugster. Efficient Session-Type Guided Distributed Interaction. In *12th International Conference on Coordination Models and Languages (COORDINATION 2010)*, June 2010. **(10/37 = 27.0% acceptance ratio for full papers.)**
- [C35] P. Eugster and K.R. Jayaram. EventJava: An Extension of Java for Event Correlation. In *23rd AITO European Conference on Object Oriented Programming (ECOOP 2009)*, July 2009. **(25/117 = 21.4% acceptance ratio for full papers.)**
- [C36] A. Kangarlou, P. Eugster, and D. Xu. VNSnap: Taking Snapshots of Virtual Networked Environments with Minimal Downtime. In *39th Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2009)*, June 2009. **(37/177 = 20.9% acceptance ratio for full papers.)**
- [C37] K.J. Hoffman, P. Eugster, and S. Jagannathan. Semantics-Aware Trace Analysis. In *2009 ACM International Conference on Programming Language Design and Implementation (PLDI 2009)*, June 2009. **(41/196 = 20.9% acceptance ratio for full papers.)**
- [C38] H. Yuan and P. Eugster. An Efficient Algorithm for Solving the Dyck-CFL Reachability Problem on Trees. In *18th European Symposium On Programming (ESOP 2009)*, March 2009. **(26/98 = 26.5% acceptance ratio for full papers.)**
- [C39] C. Line, K.R. Jayaram, and P. Eugster. Lazy Argument Passing in Java RMI. In *6th ACM International Conference on Principles and Practices of Programming in Java (PPPJ 2008)*, September 2008. **(19/40 = 47.5% acceptance ratio for full papers.)**
- [C40] K.J. Hoffman and P. Eugster. Towards Reusable Components with Aspects: An Empirical Study on Modularity and Obliviousness. In *30th ACM / IEEE International Conference on Software Engineering (ICSE 2008)*, May 2008. **(56/371 = 15.1% acceptance ratio for full papers.)**
- [C41] K.J. Hoffman and P. Eugster. Bridging Java and AspectJ through Explicit Join Points. In *5th ACM International Conference on Principles and Practices of Programming in Java (PPPJ 2007)*, September 2007. **(19/158 = 32.8% acceptance ratio for full papers.)**
- [C42] J. Thomas, F. Paci, E. Bertino, and P. Eugster. User Tasks and Access Control over Web Services. In *2007 IEEE International Conference on Web Services (ICWS 2007)*, July 2007. **(18% acceptance ratio for full papers.)**
- [C43] A. Leitner, P. Eugster, M. Oriol, and I. Ciupa. Reflecting on an Existing Programming Language. In *2007 International Conference on Technologies of Object-oriented Languages and Systems Europe (TOOLS Europe 2007)*, June 2007. **(24/78 = 30.8% acceptance ratio for full papers.)**
- [C44] S. Baehni, J. Barreto, P. Eugster, and R. Guerraoui. Efficient Distributed Subtyping Tests. In *2007 ACM / IEEE / USENIX International Conference on Distributed Event-based Systems (DEBS 2007)*, June 2007.
- [C45] S. Balzer, T. Gross, and P. Eugster. A Relational Model of Object Collaborations. In *21st AITO European Conference on Object-Oriented Programming (ECOOP 2007)*, June 2007. **(25/160 = 15.6% acceptance ratio for full papers.)**
- [C46] P. Eugster. Uniform Proxies for Java. In *21st ACM Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA 2006)*, October 2006. **(26/157 = 16.5% acceptance ratio for full papers.)**

- [C47] P. Eugster, B. Garbinato, and A. Holzer. Pervaho: A Development and Testing Platform for Mobile Ad Hoc Applications. In *3rd ACM / IEEE Annual International Conference on Mobile and Ubiquitous Systems, Networks and Services (MobiQuitous 2006)*, July 2006.
- [C48] T.G. Bay, P. Eugster, and M. Oriol. Generic Component Lookup. In *9th SIGSOFT Symposium on Component-based Software Engineering (CBSE 2006)*, June 2006. **(22/77 = 28.6% acceptance ratio for full papers.)**
- [C49] P. Eugster, B. Garbinato, and A. Holzer. Location-Based Publish/Subscribe. In *4th IEEE International Symposium on Network Computing and Applications (NCA 2005)*, July 2005.
- [C50] S. Baehni, P. Eugster, and R. Guerraoui. Data-Aware Multicast. In *5th IEEE / IFIP International Conference on Dependable Systems and Networks (DSN 2004)*, June 2004. **(58/276 = 21.0% acceptance ratio for full papers.)**
- [C51] P. Eugster, C.H. Damm, and R. Guerraoui. Towards Safe Distributed Application Development. In *26th ACM / IEEE International Conference on Software Engineering (ICSE 2004)*, May 2004. **(58/436 = 13.3% acceptance ratio for full papers.)**
- [C52] P. Eugster, R. Guerraoui, and P. Kouznetsov. Delta-Reliability: A Probabilistic Measure of Broadcast Reliability. In *24th IEEE International Conference on Distributed Computing Systems (ICDCS 2004)*, March 2004. **(84/475 = 17.7% acceptance ratio for full papers.)**
- [C53] C.H. Damm, P. Eugster, and R. Guerraoui. Programming Language Support for Distributed Programming Abstractions. In *24th IEEE International Conference on Distributed Computing Systems (ICDCS 2004)*, March 2004. **(84/475 = 17.7% acceptance ratio for full papers.)**
- [C54] S. Baehni, P. Eugster, R. Guerraoui, and P. Altherr. Pragmatic Type Interoperability. In *23rd IEEE International Conference on Distributed Computing Systems (ICDCS 2003)*, July 2003. **(72/406 = 17.7% acceptance ratio for full papers.)**
- [C55] J. Luo, J.-P. Hubaux, and P. Eugster. Pan: Providing Reliable Storage in Mobile Ad-hoc Networks with Probabilistic Quorum Systems. In *Fourth ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc 2003)*, June 2003. **(29/189 = 15.3% acceptance ratio for full papers.)**
- [C56] J. Luo, P. Eugster, and J.-P. Hubaux. Route Driven Gossip: Probabilistic Reliable Multicast in Ad Hoc Networks. In *IEEE INFOCOM 2003 Conference*, April 2003. **(224/1078 = 20.8% acceptance ratio for full papers.)**
- [C57] P. Eugster and S. Baehni. Abstracting Remote Object Interaction in a Peer-to-Peer Environment. In *ACM Java Grande ISCOPE 2002 Conference*, November, 2002.
- [C58] S. Baehni, P. Eugster, and R. Guerraoui. OS Support for Peer-to-Peer Programming: A Case for Type-based Publish/Subscribe. In *22nd IEEE International Conference on Distributed Computing Systems (ICDCS 2002)*, July 2002. **(61/331 = 18.4% acceptance ratio for full papers.)**
- [C59] P. Eugster and R. Guerraoui. Probabilistic Multicast. In *3rd IEEE / IFIP International Conference on Dependable Systems and Networks (DSN 2002)*, June 2002. **(48/156 = 30.7% acceptance ratio for full papers.)**
- [C60] P. Eugster, R. Guerraoui, and C.H. Damm. On Objects and Events. In *16th ACM Conference on Object-Oriented Programming Systems, Languages and Applications (OOPSLA 2001)*, October 2001. **(27/145 = 18.6% acceptance ratio for full papers.)**

- [C61] P. Eugster, R. Guerraoui, S. Handurukande, A.-M. Kermarrec, and P. Kouznetsov. Lightweight Probabilistic Broadcast. In *2nd IEEE / IFIP International Conference on Dependable Systems and Networks (DSN 2001)*, July 2001. **(53/153 = 34.6% acceptance ratio for full papers.)**
- [C62] P. Eugster and R. Guerraoui. Content-Based Publish/Subscribe with Structural Reflection. In *6th USENIX Conference on Object-Oriented Technologies and Systems (COOTS 2001)*, February 2001.
- [C63] P. Eugster, R. Guerraoui, and J. Sventek. Distributed Asynchronous Collections: Abstractions for Publish/Subscribe Interaction. In *14th AITO European Conference on Object-Oriented Programming (ECOOP 2000)*, June 2000. **(20/109 = 18.3% acceptance ratio for full papers.)**
- [C64] P. Felber, X. Dfago, P. Eugster, and A. Schiper. Replicating CORBA Objects: A Marriage between Active and Passive Replication. In *Second IFIP International Working Conference on Distributed Applications and Interoperable Systems (DAIS 1999)*, July 1999.

## Books and Monographs

- [E1] J. Aldrich and P. Eugster (Eds.). Proceedings of the 2015 ACM SIGPLAN International Conference on Object-Oriented Programming, Systems, Languages, & Applications (OOPSLA 2015). ACM, October 2015, ISBN 978-1-4503-3689-5.
- [E2] J. Aldrich and P. Eugster (Eds.). Companion Proceedings of the 2015 ACM SIGPLAN International Conference on Systems, Programming, Languages and Applications: Software for Humanity (SPLASH 2015). ACM, October 2015, ISBN 978-1-4503-3722-9.
- [E3] A. L. Hosking, P. Eugster, C. V. Lopes (Eds.). Proceedings of the 2013 ACM SIGPLAN International Conference on Object Oriented Programming, Systems, Languages & Applications (OOPSLA 2013). ACM, October 2013, ISBN 978-1-4503-2374-1.
- [E4] A. L. Hosking, P. Eugster (Eds.). Companion Proceedings of the 2013 ACM SIGPLAN International Conference on Systems, Programming Languages, and Applications: Software for Humanity (SPLASH 2013). ACM, October 2013, ISBN 978-1-4503-1995-9.
- [E5] A. L. Hosking, P. Eugster, R. Hirschfeld (Eds.). ACM 2013 Symposium on New Ideas in Programming and Reflections on Software (Onward! 2013). ACM, October 2013, ISBN 978-1-4503-2472-4
- [E6] F. Bry, A. Paschke, P. Eugster, C. Fetzer, and A. Behrend (Eds.). Proceedings of the 6th ACM International Conference on Distributed Event-Based Systems (DEBS 2012). ACM, July 2012, ISBN 978-1-4503-1315-5.
- [E7] E. Tilevich and P. Eugster (Eds.). SPLASH Workshop on Programming Support Innovations for Emerging Distributed Applications (PSI-EtA 2010). ACM 2010, ISBN 978-1-4503-0544-0.
- [E8] P. Eugster (Ed). ECOOP 2008 Workshop Reader. Springer (LNCS 5475), 2009, ISBN 978-3-642-02046-9.

## Book Chapters

- [B1] W. Culhane, P. Eugster, C. Jayalath, K. Kogan, M. Saeida Ardekani, and J. Stephen. Cloud Federation and Distribution. In “Encyclopedia of Cloud Computing”, Wiley, 2016, ISBN: 978-1-118-82197-8.
- [B2] P. Eugster. Interface (pages 1553–1557). In “Encyclopedia of Database Systems”, Springer, 2009, ISBN: 978-0-387-39940-9.
- [B3] P. Eugster, B. Garbinato, A. Holzer. Middleware Support for Context-aware Applications (Chapter 14, pages 305–319). In “Middleware for Network Eccentric and Mobile Applications”, Springer, 2009, ISBN: 978-3-540-89706-4.

- [B4] V. Arslan, P. Eugster, P. Nienaltovski, and S. Vaucouleur. SCOOP Concurrency Made Easy. Dependable Systems (Chapter 4, pages 82–102). In “Dependable Systems: Software, Computing, Networks; Research Results of the DICS Program”, Springer (LNCS 4028), November 2006, ISBN: 978-3-540-36821-2
- [B5] P. Altherr, S. Baehni, V. Bezençon, P. Eugster, R. Guerraoui, and M. Monod. Pragmatic Distributed Type Interoperability (Chapter 12, pages 249–274). In “Global Data Management”, Volume 8 Emerging Communication: Studies on New Technologies and Practices in Communication, IOS Press, July 2006, ISBN: 978-1-58603-629-4.
- [B6] P. Eugster. Reliable Computing in Ad-hoc Networks (Chapter 14, pages 219–230). In “Theoretical and Algorithmic Aspects of Sensor, Ad-hoc Wireless and Peer-to-Peer Networks”, CRC Press, August 2005, ISBN: 978-0-849-32832-9.
- [B7] P. Eugster, R. Guerraoui, and J. Sventek. Loosely Coupled Components (Chapter 6, pages 175–205). In “Software Architectures and Component Technology: The State of the Art in Research and Practice”, Springer, October 2002, ISBN: 978-0-7923-7576-0.

## Workshop Papers in Proceedings

- [W1] W. Culhane, K. Kogan, C. Jayalath, and P. Eugster. LOOM: Optimal Aggregation Overlays for In-Memory Big Data Processing. In *6th USENIX Workshop on Hot Topics in Cloud Computing (HotCloud 2014)*, June 2014.
- [W2] J. Stephen, S. Savvides, R. Seidel, Z. Zhylkaidar, and P. Eugster. Practical Confidentiality-Preserving Big Data Analysis in the Cloud. In *6th USENIX Workshop on Hot Topics in Cloud Computing (HotCloud 2014)*, June 2014.
- [W3] K. Kogan, S. I. Nikolenko, W. Culhane, P. Eugster, and E. Ruan. Towards Efficient Implementation of Packet Classifiers in SDN/OpenFlow. In *2nd ACM Workshop on Hot Topics in Software Defined Networking (HotSDN 2013)*, August 2013.
- [W4] D. Eyers, T. Freudenreich, A. Magara, S. Frischbier, P. Pietzuch, and P. Eugster. Living in the Present: On-the-Fly Information Processing in Scalable Web Architectures. In *2nd International Workshop on Cloud Computing Platforms (CloudCP 2012)*, April 2012.
- [W5] G.A. Wilkin and P. Eugster. Multicast with Aggregated Deliveries. In *1st International Workshop on Algorithms and Models for Distributed Event Processing (AIMoDEP) at 25th International Symposium on Distributed Computing (DISC 2011)*, September 2011.
- [W6] V. Sundaram, P. Eugster, and X. Zhang. Lightweight Tracing for Wireless Sensor Networks Debugging. In *4th ACM International Workshop on Middleware Tools, Services and Run-Time Support for Sensor Networks (MidSens 2009) at the 10th ACM / IFIP / USENIX International Middleware Conference (Middleware 2009)*, November 2009.
- [W7] K.R. Jayaram and P. Eugster. Context-oriented Programming with EventJava. In *International Workshop on Context-oriented Programming (COP 2009) at the 23rd AITO European Conference on Object Oriented Programming (ECOOP 2009)*, July 2009.
- [W8] T. Wrigstad, P. Eugster, J. Field, N. Nystrom, and J. Vitek. Software Hardening: A Research Agenda. In *1st International Workshop on Script to Program Evolution (STOP) at the 23rd AITO European Conference on Object Oriented Programming (ECOOP 2009)*, July 2009.
- [W9] A. Kangarlou, P. Ruth, D. Xu, and P. Eugster. Taking Snapshots of Virtual Networked Environments. In *IEEE International Workshop on Virtualization Technology in Distributed Computing (VTDC 2007) in conjunction with the ACM / IEEE International Conference for High Performance Computing, Networking, Storage, and Analysis (SC 2007)*, November 2007.

- [W10] K.J. Hoffman, M. Ramanathan, P. Eugster, and S. Jagannathan. Aspect-based Introspection and Change Analysis for Evolving Programs. In *5th International Workshop on Reflection, AOP, and Meta-Data for Software Evolution (RAM-SE 2007) at the 21st AITO European Conference on Object-Oriented Programming (ECOOP 2007)*, July 2007.
- [W11] S. Vaucouleur and P. Eugster. Atomic Features. In *Workshop on Synchronization in Concurrent Object-Oriented Languages (SCOOL 2005) at the 20th ACM Conference on Object-Oriented Systems, Languages, and Applications (OOPSLA 2005)*, October 2005.
- [W12] S. Balzer, P. Eugster, and B. Meyer. Can Aspects Implement Contracts? In *2nd International Workshop on Rapid Integration of Software Engineering Techniques (RISE 2005)*, September 2005.
- [W13] M. Brahami, P. Eugster, R. Guerraoui, and S.B. Handurukande. BGP-based Clustering for Scalable and Reliable Gossip Broadcast. In *IST / FET International Workshop on Global Computing 2004*, March 2004.
- [W14] P. Eugster, P. Felber, R. Guerraoui, and S.B. Handurukande. Event Systems: How to Have Your Cake and Eat It Too. In *First International Workshop on Distributed Event-Based Systems (DEBS 2002) at the 22nd IEEE International Conference on Distributed Computing Systems (ICDCS 2002)*, July 2002.

## Short Papers

- [S1] A. Dixit, K. Kogan, and P. Eugster. Composing Heterogeneous SDN Controllers with FlowBricks. In *22nd IEEE International Conference on Network Protocols (ICNP 2014)*, short paper, November 2014.
- [S2] W. Culhane, K.R. Jayaram, and P. Eugster. Weighted Partial Message Matching for Implicit Multicast Systems. In *26th International Symposium on Distributed Computing (DISC 2012)*, short paper, September 2012.
- [S3] V. Sundaram, P. Eugster, and X. Zhang. Diagnostic Tracing of Wireless Sensor Networks with Tiny-Tracer. In *10th International Conference on Information Processing in Sensor Networks (IPSN 2011)*, demo session, April 2011.
- [S4] K.J. Hoffman and P. Eugster. Aspects Made Explicit for Safe Transactional Semantics. In *7th IEEE /IFIP International Conference on Dependable Systems and Networks (DSN 2006)*, extended abstract.
- [S5] V. Arslan, P. Eugster and P. Nienaltowski. Modeling Embedded Real-time Applications with Objects and Events. In *12th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS 2006)*, short paper, April 2006.

## Others

- [O1] G. Salvaneschi, W. De Meuter, P. Eugster, and L. Ziarek. Workshop Preview of the 2015 Workshop on Reactive and Event-Based Languages and Systems (REBLS 2015). *SPLASH (Companion Volume) 2015*: 109-110.
- [O2] Dagstuhl Workshop 10201 Participants. Event Manifesto. Author of Chapter 6 on “Near-term Research Challenges”, July 2010.

## Patents

- [P1] P. Eugster, V. Sundaram, and X. Zhang. Lightweight Tracing for Wireless Sensors.
- [P2] P. Eugster and V. Sundaram. Tracing Message Transmissions between Communicating Network Devices.

[P3] M.E. Tan Creti, V. Sundaram, S. Bagchi, and P. Eugster: Record and Replay for Debugging Wireless Embedded Devices.

### 3 Lectures

#### Invited Talks at Conferences and Other Events

- “Fixing the IoT, or, Ph.D. or Tech Startup?”, Ph.D. Symposium, SPLASH 2015, Pittsburgh, 10/2015.
- “IoT: Trust is Good but Control is Better”, 4th Workshop on Future of Distributed Computing (FuDiCo), Cornell University, Ithaca, 10/2015.
- “Reliable and Secure Sensor Software”, 4th International Symposium on Sensor Science (I3S2015), Basel, Switzerland, 7/2015.

#### Talks at Universities and Other Institutions

1. “Towards a Robust IoT – The Case of Wireless Sensor Networks”, ETHZ, Switzerland, 5/2016.
2. “Towards a Robust IoT – The Case of Wireless Sensor Networks”, University of Lugano, Switzerland, 5/2016.
3. “From Distributed Programming to Big Data Analytics”, TU Darmstadt, Germany, 7/2015.
4. “Towards Federated Big Data Processing”, Dagstuhl (seminar on Distributed Cloud Computing), 2/2015.
5. “Federated and Assured Big Data Processing”, ABB, Baden, Switzerland, 8/2014.
6. “Synergies in Adaptive Communication”, TU Darmstadt, Germany, 8/2014.
7. “My Place or Yours? Efficiently Processing Geo-Distributed Big Data”, TU Darmstadt, Germany, 7/2014.
8. “LiVeSoft – Lightweight Verification of (Distributed) Software”, European Research Council, Brussels, Belgium, 9/2014.
9. “From the Clouds to the Atmosphere: Processing Big Data across Datacenters”, Google, N.Y., 5/2013.
10. “Software Systems for the DoD Cloud-of-Clouds”, Defense Advanced Research Projects Agency, Washington DC, 10/2012.
11. “On Expressiveness and Efficiency in Content-based Communication”, University of Lugano, Switzerland, 07/2012.
12. “Performance and Security Challenges in the DoD Cloud-of-Clouds”, Institute for Defense Analyses, Washington DC, 4/2012.
13. “Distributed Programming with Complex Events in Java”, Technical University of Darmstadt, Germany, 6/2011.
14. “Distributed Programming with Complex Events in Java”, University of Texas at Austin, TX, 4/2011.
15. “The Next 700 Event Processing Languages”, University of Toronto, Canada, 2/2011.
16. “Distributed Event-based Programming in Java”, Cornell University, Ithaca, NY, 11/2010.
17. “Distributed Event-based Programming in Java”, Stanford University, Palo Alto, CA, 10/2010.



18. “Distributed Event-based Programming in Java”, Caltech, Pasadena, CA, 10/2010.
19. “Semantics-Aware Program Analysis”, in 46th Showcase of the Software Engineering Research Center (SERC), Purdue University, West Lafayette, IN, 5/2009.
20. “Middleware for Context-aware Programming”, University of Lausanne (postgraduate education on Middleware for Mobile Applications), Switzerland, 12/2009.
21. “Middleware for Context-aware Programming”, Chalmers University (winter school on Middleware for Network Eccentric and Mobile Applications), Göteborg, Sweden, 3/2009.
22. “Distributed Programming in Java”, ETHZ (graduate-level seminar), Zürich, Switzerland, 7/2007.
23. “Multicast Objects”, ETHZ, Zürich, Switzerland, 5/2007.
24. “Multicast Types”, Indiana University-Purdue University Indianapolis, IN, 4/2007.
25. “Multicast Types”, IBM Research Haifa / Technion (seminar on Large-Scale Distributed Systems - LADIS), Israel, 3/2007.
26. “Programming Gossip-based Protocols”, University of Leiden (seminar on Gossip-based Networking), The Netherlands, 12/2006.
27. “Pervasive Programming”, Purdue University, West Lafayette IN, 4/2005.
28. “Pervasive Programming”, University of Texas at San Antonio, TX, 4/2005.
29. “Pervasive Programming”, Northeastern University, Boston, MA, 3/2005.
30. “Pervasive Programming”, Eurecom Institute, Nice, France, 3/2004.
31. “Pervasive Programming”, University of Geneva, Switzerland, 11/2003.
32. “Type-based Publish/Subscribe in Java”, Sun Microsystems, Zürich, Switzerland, 8/2003.
33. “Pervasive Programming”, IBM Research Rüschlikon, Zürich, Switzerland, 6/2003.
34. “Total Order Probabilistic Broadcast”, ETHZ (seminar on Distributed Computing), Zürich, Switzerland, 2003.
35. “Type-based Publish/Subscribe”, CHOOSE (Swiss OO Group), University of Bern, Switzerland, 2/2002.
36. “Probabilistic Multicast”, University of Lisbon, Portugal, 6/2002.
37. “On Objects and Events”, IBM Research T.J. Watson, Yorktown Heights, NY, 10/2001.
38. “Lighthouse Probabilistic Broadcast”, Chalmers University of Technology, Göteborg, Sweden, 7/2001.
39. “Type-based Publish/Subscribe”, Lombard Odier Darier Hentsch, Geneva, Switzerland, 12/2000.
40. “The Object Group Service”, Oracle Co., Portland, OR, 10/1999.

## Talks at Conferences

1. “Uniform Proxies for Java”, 21st ACM Conference on Object-Oriented Programming, Systems, Languages, and Applications (OOPSLA 2006), Portland, OR, 10/2006.
2. “Towards Safe Distributed Application Development”, 26th ACM / IEEE International Conference on Software Engineering (ICSE 2004), Edinburgh, Scotland, 5/2004.
3. “Programming Language Support for Distributed Programming Abstractions”, 24th IEEE International Conference on Distributed Computing Systems (ICDCS 2004), Tokyo, Japan, 3/2004.
4. “Pragmatic Type Interoperability”, 23rd IEEE International Conference on Distributed Computing Systems (ICDCS 2003), Providence, Rhode Island, 7/2003.
5. “Route Driven Gossip: Probabilistic Reliable Multicast in Ad Hoc Networks”, IEEE INFOCOM 2003 Conference, San Francisco, CA, 4/2003.
6. “Abstracting Remote Object Interaction in a Peer-to-Peer Environment”, ACM Java Grande ISCOPE 2002 Conference, Seattle, WA, 11/2002.
7. “Probabilistic Multicast”, 3rd IEEE /IFIP International Conference on Dependable Systems and Networks (DSN 2002), Bethesda, Maryland, 6/2002.
8. “On Objects and Events”, 16th ACM Conference on Object-Oriented Programming Systems, Languages and Applications (OOPSLA 2001), Tampa, FL, 10/2001.
9. “Lightweight Probabilistic Broadcast”, 2nd IEEE / IFIP International Conference on Dependable Systems and Networks (DSN 2001), Göteborg, Sweden, 7/2001.
10. “Content-Based Publish/Subscribe with Structural Reflection”, 6th USENIX Conference on Object-Oriented Technologies and Systems (COOTS 2001), San Antonio, TX, 2/2001.
11. “Distributed Asynchronous Collections: Abstractions for Publish/Subscribe Interaction”, 14th AITO European Conference on Object-Oriented Programming (ECOOP 2000), Nice, France, 6/2000.
12. “Replicating CORBA Objects: A Marriage between Active and Passive Replication”, Second IFIP International Working Conference on Distributed Applications and Interoperable Systems (DAIS '99), Helsinki, Finland, 7/1999.

## Invited Events

1. Workshop on Future of Distributed Computing (FuDiCo), Cornell University, Ithaca, 10/2015.
2. Workshop on Distributed Cloud Computing, Schloss Dagstuhl, Germany (Dagstuhl Workshop 15072), 2/2015.
3. Workshop on Epidemic Algorithms and Processes: From Theory to Applications, Schloss Dagstuhl, Germany (Dagstuhl Workshop 13042), 1/2013.
4. Workshop on Event Processing, Schloss Dagstuhl, Germany (Dagstuhl Workshop 10201), 5/2012.
5. Workshop on Relationships, Objects, Roles, and Queries in Modern Programming Languages, Schloss Dagstuhl, Germany (Dagstuhl Workshop 10152), 4/2010.
6. Workshop on Large-Scale Distributed Systems (LaDiS), IBM and Technion, Haifa, Israel, 3/2007.
7. Workshop on Gossip-based Networks, Lorentz Center, Leiden University, The Netherlands, 12/2006.

## Courses Taught

At Purdue University (all courses are 3 credit hour lectures):

Semester & Year	Course Number	Title of Course	Number of Students	Student Classif.
F 2007; F 2008	CS 307	Software Engineering I	18; 28	Undergrad.
F 2011; S 2014	CS 390/490DS0	Distributed Systems	19; 11	Undergrad.
S 2010; S 2011; S 2012	CS 456	Programming Languages	15; 9; 13	Undergrad.
S 2009; S 2014	CS 505	Distributed Systems	15; 28	Graduate
S 2008	CS 565	Programming Languages	16	Graduate
S 2006	CS 590E	Distributed Programming	5	Graduate
S 2007	CS 590E	Distributed Event-based Systems	7	Graduate
F 2010	CS 590E	Cloud Computing	25	Graduate
F 2006; F 2009	CS 603	Advanced Topics in Distributed Systems	5; 11	Graduate

## Courses Created

1. Distributed Systems CS505. Core graduate-level course at Purdue University.
2. Distributed Systems CS390DS0/CS490DS0 (temporary name). Undergraduate-level course at Purdue University.

## 4 Advising

### Graduated Students

1. Gregory Aaron Wilkin, Ph.D. “Efficient Aggregated Deliveries with Strong Guarantees in Event-Based Distributed Systems”. GAANN CS&E/CLS fellow and LYNN CSE fellowship recipient 2008. Now Assistant Professor at Rose-Hulman Institute of Technology.
2. William Culhane, Ph.D. “Big Data Aggregation Systems - From Theory to Practical Application”. Purdue Research Foundation seed grant awardee 2013. Now Postdoctoral Researcher at Imperial College London.
3. Chamikara Jayalath, Ph.D. “Geo-Distributed Big Data Processing”. 2014 (Purdue University). Purdue Research Foundation seed grant awardee 2011. Now Software Engineer at Google.
4. Kevin Hoffman, Ph.D. “Ribbons: A Partially Shared Memory Programming Model”. 2013 (Purdue University). GAAN fellowship recipient and Halstead award recipient 2008. Now CEO and CTO at eFolder (startup founder).
5. Vinaitheerthan Sundaram, Ph.D. “Lightweight Tracing for Reliable Wireless Sensor Networks”. 2013 (Purdue University). Halstead award recipient 2012. Co-advised with Prof. Xiangyu Zhang. Now CEO at SensorHound (startup co-founder).
6. Jayaram Kallapalayam Radhakrishnan, Ph.D. “Engineering Efficient Event-based Distributed Systems” 2012 (Purdue University). Halstead award recipient 2011. Now Research Staff Member at IBM Research TJ Watson.

7. Jacques Thomas, Ph.D. “Accommodative Mandatory Access Control” 2011 (Purdue University). Co-advised with Prof. Jan Vitek. Now Software Development Engineer at Amazon.
8. Sébastien Baehni, Ph.D. “Type-based Event Dissemination” 2006 (EPFL). Co-advised with Prof. Rachid Guerraoui at EPFL. Now CTO of Nextthink, Switzerland.
9. Sidath Bandara Handurukande, Ph.D. “Efficient Distributed Routing of Typed Events” 2005 (EPFL). Co-advised with Prof. Rachid Guerraoui at EPFL. Now Master Researcher at Ericsson Labs, Ireland.
10. Parantap Roy, M.S. 2011 (Purdue University). Now Member of Technical Staff at Appformix.
11. Harrison Metzger, M.S. “A Uniform Distributed Shared File System” 2010 (Purdue University). Now Trade Strategy Developer at DRW Trading Group.
12. Ankur Khetrapal, M.S. “Dynamic Decentralized Event Correlation” 2010 (Purdue University). Now Senior Engineer at Apple.
13. Daniel Moser, M.S. “Transactions for Eiffel”, 2005 (ETHZ). Now CEO at ServiceHunter (startup founder), Switzerland.
14. Michel Roserens, M.S. “Filtering Events in Distributed Financial Systems” 2001 (EPFL). Now Head of Investor Relations at Vontobel Holding, Switzerland.

## Current Doctoral Students

1. Julian Stephen (Purdue University), Ph.D. student/candidate in Computer Science, Research Assistant. “Assured Cloud-based Data Analysis”. Halstead award recipient 2015. Preliminary Ph.D. exam passed May 2014; graduation expected Fall 2015.
2. Chiang-Hsiang Hsu (Purdue University), Ph.D. student/candidate in Computer Science, Research Assistant. “Lightweight Secure Multi-Programming with Ribbons”. Graduation expected 2016.
3. Savvas Savvides (Purdue University), Ph.D. student/candidate in Computer Science, Research Assistant. “Privacy-preserving Cloud-based Big Data Analytics”. Graduation expected 2017.
4. Bara’ Abusalah (Purdue University), Ph.D. student/candidate in Computer Engineering, Teaching Assistant. “Fault-tolerant Cloud Resources”. Graduation expected 2017.
5. Bo Sang (Purdue University), Ph.D. student/candidate in Computer Science, Teaching Assistant. “Elastic Systems Programming”. Graduation expected 2017.
6. Weihang Wang (Purdue University), Ph.D. student/candidate in Computer Science, Teaching Assistant. “Web Security Testing”. Graduation expected 2017. Co-advised with X. Zhang.
7. Patrick Jahnke (TU Darmstadt), Ph.D. student/candidate in Computer Science (TU Darmstadt). “Application-defined Networking”. Graduation expected 2017.
8. Derek Schatzlein (Purdue University), Ph.D. student/candidate in Computer Science, Research Assistant. “Resource Scheduling”. Graduation expected 2018.
9. James Lembke (Purdue University), Ph.D. student/candidate in Computer Science, Research Assistant, Ross Fellow. “Network Storage”. Graduation expected 2018.
10. Danushka Menikkumbura (Purdue University), Ph.D. student/candidate in Computer Science, Research Assistant. “Software-Defined Data Plane”. Graduation expected 2018.
11. Malte Viering (TU Darmstadt), Ph.D. student/candidate in Computer Science (TU Darmstadt). “Protocol Typing”. Graduation expected 2018.
12. Marcel Blöcher (TU Darmstadt), Ph.D. student/candidate in Computer Science (TU Darmstadt). “In-Network Big Data Processing”. Graduation expected 2018.

## Past Postdocs

1. YoungTae Noh. Now faculty at Inha University, South Korea.
2. Masoud Saeida Ardekani. Now with Samsung Research.
3. Kirill Kogan. Now faculty at IMDEA Networks.
4. Adrian Holzer. Now with EPFL.

## Current Postdocs

1. Srivatsan Ravi. Currently with Purdue University CS.
2. Tz-Chun Chen. Currently with TU Darmstadt CS.
3. Andi Bejleri. Currently with TU Darmstadt CS.

## Doctoral Committees

1. Sebastian Frischbier, TU Darmstadt, Germany, exp. 1/2016.
2. Christian Iwainsky, TU Darmstadt, Germany, exp. 12/2015.
3. Cong Xu, Purdue University, exp. 11/2015.
4. Johannes Daxenberger, TU Darmstadt, Germany, 7/2015.
5. Wei-Chiu Chuang, Purdue University, 7/2015.
6. Tobias Freudenreich, TU Darmstadt, Germany, 7/2015.
7. Jurgen Van Ham, TU Darmstadt, Germany, 3/2015.
8. Naresh Rapolu, Purdue University, 3/2015.
9. Karthik Kambatla, Purdue University, 12/2014.
10. K.C. Sivaramakrishna, Purdue University, 11/2014.
11. Julian Friedman, University of York, UK, 10/2014.
12. Advait Dixit, Ph.D. Purdue University, 10/2014.
13. Kyu-Hyung Lee, Ph.D., Purdue University, 7/2014.
14. Young-Woo Kwon, Ph.D., Virginia Institute of Technology, 6/2014.
15. Stefan Appel, Ph.D., Technical University of Darmstadt, 5/2014.
16. Pawan Prakash, Ph.D., Purdue University, 10/2013.
17. Karthik Nagaraj, Ph.D., Purdue University, 9/2013.
18. Francois Vessaz, Ph.D., University of Lausanne, Switzerland, 5/2013.
19. Dasarath Weeratunge, Ph.D., Purdue University, 12/2012.
20. Meghana Chitale, Ph.D., Purdue University, 11/2012.
21. Mario Fanelli, Ph.D., University of Bologna, Italy, 12/2011.

22. Andoni Lombide Carredon, Ph.D., Vrije Universiteit Brussels, Belgium, 10/2011.
23. Ardalan Kangarlou, Ph.D., Purdue University, 6/2011.
24. Armand Navabi, Ph.D., Purdue University, 2/2011.
25. Lukasz Ziarek, Ph.D., Purdue University, 1/2011.
26. Hao Yuan, Ph.D., Purdue University, 3/2010.
27. Adrian Holzer, Ph.D., University of Lausanne, Switzerland, 4/2009.
28. Phil McGachey, Ph.D., Purdue University, 3/2009.
29. Sebastien Baehni, Ph.D., EPFL, Switzerland, 6/2006.
30. Ali Reza, Ph.D., Purdue University, 6/2006.

### **Undergraduate Research Students**

1. Raghav Shankar (now with Microsoft).
2. Zhandos Zhylkaidar.
3. Dharmil Shah (now at TU Munich).
4. Jilong Yin (now at Purdue University).
5. Sean Bennett (now with Udacity).
6. Jacob Fancher (now with FactSet).
7. Ryan Maus (now with Allston Trading).
8. Christopher Line (Ph.D., now with Loyola University Chicago).
9. Patrick Bizeau (now Head of Information Technology at Swisscom).
10. Sofiane Sarni (Ph.D., now scientist at EPFL).
11. Ana Petrovic (Ph.D.).
12. Petr Kouznetsov (Ph.D., now Professor at Telekom ParisTech).

### **Undergraduate Advising and Curriculum Involvement**

1. Faculty advisor of Purdue ACM Student Chapter 2006-2014.
2. Faculty advisor of Purdue CS Graduate Student Board 2009-2014.
3. Manager of ACM competitive programming teams 2006-2011 (world finalist 2009).
4. Designer of undergraduate and graduate-level Distributed Systems classes at Purdue University CS.
5. Co-designer of Programming Language track at Purdue University CS.
6. Chair of Programming Languages track at Purdue University CS since inception.
7. Co-designer of Software Engineering track at Purdue University CS.

## 5 Service

### Steering Committees

1. Steering Committee Member *ACM International Conference on Software, Programming, Languages, Applications: Software for Humanity (SPLASH)*, 2012-present.
2. Steering Committee Member *ACM / IFIP International Conference on Distributed Event-based Systems (DEBS)*, 2012-present.

### General Chair

1. General Co-Chair *ACM International Conference on Software, Programming, Languages, Applications: Software for Humanity 2013 (SPLASH 2013)*.
2. General Co-Chair *Reactive and Event-Based Languages and Systems (REBLS)*, ACM sponsored workshop series co-located with OOPSLA 2014–2015.
3. General Co-Chair *Programming Support Innovations for Emerging Distributed Applications (PSI-EtA)*, ACM sponsored workshop co-located with OOPSLA 2010.

### Program Chair

1. Program Chair, *ACM International Conference on Object Oriented Programming, Systems, Languages, and Applications 2015 (OOPSLA 2015)*.
2. Program Co-Chair, *ACM / IFIP International Conference on Distributed Event-based Systems 2012 (DEBS 2012)*.
3. Program Co-Chair *Programming Support Innovations for Emerging Distributed Applications (PSI-EtA)*, ACM sponsored workshop co-located with OOPSLA 2010.

### Program Committee Member and Other Roles in Organization

1. Program Committee Member, *AITO European Conference on Object-Oriented Programming 2017 (ECOOP 2017)*.
2. Program Committee Member, *IEEE International Conference on Software Engineering 2017 (ICSE 2017)*.
3. Program Committee Member, *IEEE International Conference on Distributed Computing Systems 2016 (ICDCS 2016) – Fault Tolerance and Dependability Track*.
4. Program Committee Member, *ACM International Conference on Object-Oriented Programming, Systems, Languages, and Applications 2014 (OOPSLA 2014)*.
5. Program Committee Member, *AITO European Conference on Object-Oriented Programming 2016 (ECOOP 2016)*.
6. Program Committee Member, *IEEE International Conference on Cloud Engineering 2015 (IC2E 2015)*.
7. Program Committee Member, *ACM / USENIX / IFIP International Middleware Conference 2014 (Middleware 2014)*.
8. Program Committee Member, *IEEE SDN Architecture and Applications 2014 (SDN 2014)*.

9. Program Committee Member, *ACM International Conference on Object-Oriented Programming, Systems, Languages, and Applications 2014 (OOPSLA 2014)*.
10. Program Committee Member, *ACM International Conference on Distributed Event-based Systems 2014 (DEBS 2014)*.
11. Program Committee Member, *IEEE International Symposium on Reliable Distributed Systems 2014 (SRDS 2014)*.
12. Program Committee Member, *IEEE International Conference on Cloud Engineering 2014 (IC2E 2014)*.
13. Program Committee Member, *IEEE International Conference on Distributed Computing Systems 2014 (ICDCS 2014) – Fault Tolerance and Dependability Track*.
14. Program Committee Member, *ACM / USENIX / IFIP International Middleware Conference 2013 (Middleware 2013)*.
15. Program Committee Member, *International Conference on Principles of Distributed Systems 2013 (OPODIS 2013)*.
16. Program Committee Member, *ACM Foundations of Software Engineering / European Software Engineering Conference 2013 (FSE/ESEC 2013)*.
17. Program Committee Member, *ACM International Conference on Distributed Event-based Systems 2013 (DEBS 2013)*.
18. Program Committee Member, *ACM / USENIX / IFIP International Middleware Conference 2012 (Middleware 2012)*.
19. External Reviewing Committee Member, *ACM International Conference on Object-Oriented Programming, Systems, Languages, and Applications 2012 (OOPSLA 2012)*.
20. Program Committee Member, *Conference on Coordination Models and Languages 2012 (COORDINATION 2012)*.
21. Workshop Co-Chair, *AITO European Conference on Object-Oriented Programming 2012 (ECOOP 2012)*.
22. Program Committee Member, *IEEE International Conference on Distributed Computing Systems 2012 (ICDCS 2012) – Fault Tolerance and Dependability Track*.
23. Program Committee Member, *IEEE International Conference on Distributed Computing Systems 2012 (ICDCS 2012) – Operating Systems and Middleware Track*.
24. Program Committee Member, *International Conference on Aspect-Oriented Software Development 2012 (AOSD 2012)*.
25. Program Committee Member, *ACM / USENIX / IFIP International Middleware Conference 2011 (Middleware 2011)*.
26. Program Committee Member, *AITO European Conference on Object-Oriented Programming 2011 (ECOOP 2011)*.
27. Program Committee Member, *Conference on Coordination Models and Languages 2011 (COORDINATION 2011)*.
28. Program Committee Member, *Conference on Coordination Models and Languages 2010 (COORDINATION 2010)*.



29. PhD Symposium Referee, *ACM / USENIX / IFIP International Middleware Conference 2010 (Middleware 2010)*.
30. Program Committee Member, *International Conference on Technologies of Object-oriented Languages and Systems Europe 2009 (TOOLS Europe 2009)*.
31. Publicity Chair, *ACM International Conference on Distributed Event-based Systems 2009 (DEBS 2009)*.
32. Workshop Chair, *AITO European Conference on Object-Oriented Programming 2008 (ECOOP 2008)*.
33. Program Committee Member, *IEEE International Symposium on Distributed Objects and Applications 2008 (DOA 2008)*.
34. Program Committee Member, *Workshop on Reliability in Decentralized Distributed Systems 2008 (RDDS 2008)*.
35. Program Committee Member, *IEEE International Conference on High-Performance Computing and Communications 2008 (HPCC 2008)*.
36. Program Committee Member, *International Conference on Technologies of Object-oriented Languages and Systems Europe 2008 (TOOLS Europe 2008)*.
37. Program Committee Member, *IEEE International Symposium on Distributed Objects and Applications 2007 (DOA 2007)*.
38. Program Committee Member, *Autonomics 2007*.
39. Program Committee Member, *Workshop on Reliability in Decentralized Distributed Systems 2007 (RDDS 2007)*.
40. Program Committee Member, *Distributed Event-based Systems 2006 (DEBS 2006)*.
41. Program Committee Member, *AITO European Conference on Object-Oriented Programming 2006 (ECOOP 2006)*.
42. Program Committee Member, *IEEE International Symposium on Distributed Objects and Applications 2006 (DOA 2006)*.
43. Program Committee Member, *Workshop on Wireless Ad hoc and Sensor Networks 2006 (WWASN 2006)*.
44. Program Committee Member, *International Conf. on Object-Oriented and Internet-based Technologies 2005 (NODE 2005)*.
45. Workshop Committee Member, *IEEE /IFIP Dependable Systems and Networks 2005 (DSN 2005)*.
46. Program Committee Member, *IEEE International Symposium on Distributed Objects and Applications 2005 (DOA 2005)*.
47. Program Committee Member, *IEEE International Symposium on Distributed Objects and Applications 2004 (DOA 2004)*.
48. Program Committee Member, *International Workshop on Distributed Event-Based Systems 2003 (DEBS 2003)*.
49. Program Committee Member, *International Conf. on Object-Oriented and Internet-based Technologies 2003 (NODE 2003)*.

50. Program Committee Member, *International Workshop on Distributed Event-Based Systems 2002 (DEBS 2002)*.
51. Program Committee Member, *IEEE International Symposium on Distributed Objects and Applications 2002 (DOA2 2002)*.

## Journal Reviewing

1. Journal of the ACM (JACM).
  2. ACM Transactions on Computer Systems (TOCS).
  3. ACM Transactions on Software Engineering and Methodology (TOSEM).
  4. ACM Transactions on Programming Languages and Systems (TOPLAS).
  5. ACM Transactions on Internet Technology (TOIT).
  6. ACM Computing Surveys (CSUR).
  7. IEEE Transactions on Parallel and Distributed Systems (TPDS).
  8. IEEE Transactions on Cloud Computing (TCC).
  9. IEEE Transactions on Mobile Computing (TMC).
  10. IEEE Transactions on Software Engineering (TSE).
  11. IEEE Transactions on Data Knowledge and Engineering (TDKE).
  12. IEEE Transactions on Information Systems (TIS).
  13. Distributed Computing, Springer.
  14. Journal of Parallel and Distributed Computing (JPDC), Elsevier.
  15. Concurrency & Computation - Practice & Experience (CCPE), Elsevier.
  16. Software - Practice & Experience (SPE), Elsevier.
  17. Journal of Systems Software (JSS), Elsevier.
- (others)

## Grant Reviewing

1. Panelist, *US National Science Foundation Computer Systems Research (CSR)* large proposals (budgets up to \$3Mio).
2. Panelist, *US National Science Foundation Computer Systems Research (CSR)* medium-size proposals (up to \$1.2Mio).
3. Panelist, *US National Science Foundation Computer Systems Research (CSR)* small proposals (up to \$5Mio).
4. Panelist, *US National Science Foundation CAREER*.
5. Grant Proposal Referee, *European Research Council (ERC) Consolidator* (budgets up to €2.5Mio).
6. Grant Proposal Referee, *Israel Science Foundation (ISF)*.

7. Grant Proposal Referee, *Swiss National Science Foundation (SNF)*.
8. Grant Proposal Referee, *Hasler Foundation*, Switzerland.
9. Grant Proposal Referee, *Research Foundation Flanders (FWO)*, Belgium.
10. Grant Proposal Referee, *Qatar National Research Foundation (QNRF)*.
11. Grant Proposal Referee, *Czech Science Foundation*.

## **Departmental Service**

1. Member of the *Executive Committee*, 08/2013 – 08/2014, Purdue University CS.
2. Member of the *Faculty Hiring Committee*, 08/2013 – 07/2014, Purdue University CS.
3. Member of the *Graduate Admissions Committee*, 08/2005 – 07/2006 and 08/2011 – 07/2013, Purdue University CS.
4. Chair of the *Programming Languages Track*, Spring 2011 (inception) – present, Purdue University.
5. Faculty advisor of the *Graduate Student Board*, 08/2009 – 07/2014, Purdue University CS.
6. Panel member and co-organizer of the “*Academic Job Market*” *Panel* initiated by Purdue CS Graduate Student Board, February 2010, Purdue University CS.
7. Member of the *Strategic Planning Committee*, 08/2009 – 07/2010, Purdue University CS.
8. Member of the *Undergraduate Study Committee*, 08/2008 – 07/2009, Purdue University CS.
9. *Secretary to the Faculty*, 08/2006 – 07/2008, Purdue University CS.