

## **Ilkay Altintas**

San Diego Supercomputer Center  
9500 Gilman Drive  
MC 0505  
La Jolla, CA 92093-0505

Telephone: (858) 822-5453  
Fax: (858) 822-3693  
E-mail: altintas@sdsc.edu

---

### **Professional Preparation**

Middle East Technical University, Ankara, Turkey	B.S. Computer Engineering	1999
Middle East Technical University, Ankara, Turkey	M.S. Computer Engineering	2001
University of Amsterdam, Amsterdam, Netherlands	Ph.D. Computational Science	2011

### **Appointments**

2016-. 2016-. 2015-. 2015-. 2014-. 2012-. 2012-2016 2008-2014 2004-2014 2005-2007 2001-2004 1999-2001	Associate Research Scientist, San Diego Supercomputer Center, UCSD Faculty Co-Director, Master of Advanced Studies in Data Science and Engineering, UCSD Chief Data Science Officer, San Diego Supercomputer Center (SDSC), UCSD Division Director, Cyberinfrastructure Research, Education and Development, SDSC, UCSD Founder and Director, Workflows for Data Science Center of Excellence, SDSC, UCSD Lecturer, Department of Computer Science and Engineering, UCSD Assistant Research Scientist, San Diego Supercomputer Center, UCSD Deputy Coordinator for Research, San Diego Supercomputer Center, UCSD Founder and Director, Scientific Workflow Automation Technologies Laboratory, SDSC, UCSD Assistant Director, National Laboratory for Advanced Data Research (NLADR) - Data, SDSC, UCSD Research Programmer (P/A III), SDSC, UCSD Research Assistant, Middle East Technical University (Ankara, TURKEY)
--	---

### **Products (Out of 100+)**

1. **I. Altintas**, J. Block, R. de Callafon, D. Crawl, C. Cowart, A. Gupta, M. Nguyen, H.W. Braun, J. Schulze, M. Gollner, A. Trouve, L. Smarr: Towards an Integrated Cyberinfrastructure for Scalable Data-Driven Monitoring, Dynamic Prediction and Resilience of Wildfires. In Proceedings of the Workshop on Dynamic Data-Driven Application Systems (DDDAS) at the 15th International Conference on Computational Science (ICCS 2015), Procedia Computer Science, Volume 51, 2015, Pages 1633-1642, ISSN 1877-0509, doi:10.1016/j.procs.2015.05.296. (Best Paper Award)
2. Kepler Scientific Workflow System Releases 1.0, 2.0 through 2.4. (Downloaded by 100K+)
3. J. Wang, D. Crawl, **I. Altintas**, W. Li. Big Data Applications using Workflows for Data Parallel Computing. Computing in Science & Eng., 16(4), pp. 11-22, July-Aug. 2014, IEEE.

4. J. Wang, P. Korambath, **I. Altintas**, J. Davis, D. Crawl. Workflow as a Service in the Cloud: Architecture and Scheduling Algorithms. In Proceedings of International Conference on Computational Science (ICCS 2014), pages 546-556. DOI: 10.1016/j.procs.2014.05.049
5. B. Ludaescher, **I. Altintas**, C. Berkley, D. Higgins, E. Jaeger-Frank, M. Jones, E. Lee, J. Tao, Y. Zhao, Scientific Workflow Management and the Kepler System, Concurrency and Computation: Practice & Experience, 18(10), pp. 1039-1065, 2006. (Cited by 1952 in January 2018.)

#### Other Selected Products

6. **I. Altintas**, M.K. Anand, T. Vuong, S. Bowers, B. Ludaescher, P.M.A. Sloot, “A Data Model for Analyzing User Collaborations in Workflow-Driven eScience,” The International Journal of Computers and Their Applications (IJCA), 2011. Vol. 18, No. 3, p.160 – 180, Dec, 2011.
7. **I. Altintas**, A.W. Lin, J. Chen, C. Churas, M. Gujral, S. Sun, W. Li, R. Manansala, M. Sedova, J.S. Grethe, and M. Ellisman, “CAMERA 2.0: A Data-centric Metagenomics Community Infrastructure Driven by Scientific Workflows,” In Proceedings of the SWF 2010 at IEEE SERVICES '10, pp. 352-359, 2010. DOI=10.1109/SERVICES.2010.89
8. A. Goderis, C. Brooks, **I. Altintas**, E. Lee, and C. Goble, “Heterogeneous composition of models of computation,” FGCS, vol. 25, no. 5, pp. 552–560, 2009.
9. **I. Altintas**, O. Barney, E. Jaeger-Frank, Provenance Collection Support in the Kepler Scientific Workflow System, in Provenance and Annotation of Data, LNCS Volume 4145/2006, pages 118-132, 2006. (Cited by 314 in January 2018.)
10. **I. Altintas**, C. Berkley, E. Jaeger, M. Jones, B. Ludaescher, and S. Mock, “Kepler: An extensible system for design and execution of scientific workflows,” in Intl. Conference on Scientific and Statistical Database Management (SSDBM), Greece, 2004. (Cited by 980 in January 2018.)

#### Recent Synergistic Activities and Awards

- Recent Honors: CENIC 2018 Innovations in Networking Award for Experimental Applications, 2018; ACM SIGHPC Emerging Woman Leader in Technical Computing Award, 2017; Peter Chen Big Data Young Researcher Award, 2017; IEEE TCSC Award for Excellence for Early Career Researchers, 2015; SDSC Pi Person of the Year, 2014; HPCwire Reader’s Choice Award “Best Application of Big Data in HPC”, 2014; HPCwire Reader’s Choice Award “Best Data-Intensive System”, 2014; HPCwire Editor’s Choice Awards, 2014; Best Workshop Paper Award, International Conference on Computational Science, 2015; Outstanding Teaching Service Award (nominated by UC San Diego students with disabilities in recognition of accommodations), 2015 and 2016.
- Some Memberships and Advisory Boards: ACM (2002-), IEEE and WIC (2003-), ORION: CI Committee (2004-2007), OMII-UK: Technical Advisory Group, AGU Earth and Space Science Informatics: Executive Committee, Data-Enabled Life Science Alliance CI Committee (Co-chair, 2012-2013), Kepler Collaboration Leadership
- Review Panelist: NSF (2007, 2010, 2011, 2013, 2014, 2015, 2016), DOE (2010, 2011, 2012, 2013, 2015), Genome Canada (2012), Skoltech Institute (2013)
- Recent Academic Service: Associate editor: Future Generation Computer Systems Journal, Elsevier (IF: 2.369); Issue Editor: Special Issue on Experimental Software Engineering in the Cloud (ESEiC), Science of Computer Programming Journal, Elsevier, 2012; Judge for the Elsevier Executable Paper Grand Challenge, 2011; Recent Program Committees: (2014) SWF (Chair), Big Data, e-Science, IPAW, ICCS; (2013) SWF (Chair), Big Data, e-Science, ICCS; (2012) e-Science, ICCS, IPAW, CloudFlow (also on Steering Committee); (2011) e-Science, ICCS, SWF (publicity chair); Journal Reviewer: VLDB (Journal Track), FGCS, CAGEO, SIMPAT, ACM SIGMOD Record, Concurrency and Computation: Practice and Experience.