Laura C. Carrington
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Education

University of California, San Diego	Chem. Engr.	Ph.D. 2000
University of California, San Diego	Chem. Engr.	M.S. 1995
Rensselaer Polytechnic Institute	Chem. Engr.	B.S. 1992

Professional Experience

2011-present	PMaC Lab Supervisor San Diego Supercomputer Center
2001-2011	PMaC Lab researcher/supervisor, San Diego Supercomputer Center
1999-2000	NPACI Consulting Coordinator, San Diego Supercomputer Center
1997-1999	Programming Staff, San Diego Supercomputer Center
1998	Associate In Engineering, University of California, San Diego

Related Publications

1. Tiwari, A., Laurenzano, M., Peraza, J., Carrington, L., and Snavely, A. (2012) Green Queue: Customized Large-scale Clock Frequency Scaling. in *in submission Supercomputing 2012*, Salt Lake City, UT
2. Tiwari, A., Laurenzano, M., Carrington, L., and Snavely, A. (2012) *High Performance Power-Aware Computing (HPPAC12)*
3. Tiwari, A., Laurenzano, M., Carrington, L., and Snavely, A. (2011) Auto-tuning for Energy Usage in Scientific Applications. in *Proceedings of Workshop on Productivity and Performance (PROPER 2011)*, Bordeaux, France
4. Laurenzano, M., Meswani, M., Carrington, L., and Snavely, A. (2011) Reducing Energy Usage with Memory and Computation-Aware Dynamic Frequency Scaling. in *Euro-Par 2011*, France
5. Carrington, L., Tikir, M., Olschanowsky, C., Laurenzano, M., Peraza, J., Snavely, A., and Poole, S. (2011) An Idiom-finding Tool for Increasing Productivity of Accelerators. in *25th International Conference on Supercomputing (ICS 2011)*, Tucson, AZ

5 More Publications

6. Tikir, M., Carrington, L., Snavely, A., and Strohmaier, E. (2007) *The Proceeding of the ACM/IEEE Conference on High Performance Networking and Computing*
7. Carrington, L., Snavely, A., and Wolter, N. (2006) *Future Generation Computer Systems* **22**, 336-346
8. Carrington, L., Laurenzano, M., A.Snavely, Campbell, R., and Davis, L. (2005) *Proceedings of the ACM/IEEE SC2005 Conference on High Performance Networking and Computing*
9. Carrington, L., Tikir, M., Olschanowsky, C., Laurenzano, M., Peraza, J., Snavely, A., and Poole, S. (2011) An Idiom-finding Tool for Increasing Productivity of Accelerators. in *25th International Conference on Supercomputing (ICS 2011)*, Tucson, AZ
10. Carrington, L., Komatitsch, D., Laurenzano, M., Tikir, M., Michéa, D., Le Goff, N., Snavely, A., and Tromp, J. (2008) High-frequency simulations of global seismic wave propagation using SPECFEM3D_GLOBE on 62K processors. in *Proceedings of the 2008 ACM/IEEE conference on Supercomputing*, IEEE Press, Austin, Texas

Synergistic Activities
Director of the Performance Modeling and Characterization (PMaC) lab, which is focused on the advancement of performance and energy analysis of HPC applications and systems to guide scientific code development, improve architectural design, reduce energy usage, and assist in informed system procurements.

PI for UCSD on Institute for Sustained Performance, Energy, and Resilience (SUPER) DoE SciDAC-3 and lead for the energy efficiency thrust for the institute FY11-FY16 ($1075K).

Co-PI on the Performance Evaluation Research Center PERC-II (DE-FC02-01ER2541) a DOE SciDAC Integrated Software Infrastructure Center, Robert Lucas PI, Allan Snavely Co-PI (and others see perc.nersc.gov) FY05-FY07 ($541K UCSD budget), and then continuing in same role for Performance Evaluation Research Institute (PERI), (DE-FC02-06ER25760), FY07-FY11 ($1,425K UCSD budget only).

Co-PI on the Cyberinfrastructure Evaluation Center, (NSF-OCI-0516162) Allan Snavely PI, Dan Reed is equal collaborative PI, FY05-FY08, ($998,307 UCSD budget).

Co-PI on the High Performance Computing Benchmarks Initiative, a Department of Defense funded effort (via interagency funds transfer to NSF) to develop relevant performance models for applications of interest to DOD support of their annual ~$50 million procurement cycle. Allan Snavely, PI, FY02-FY08, ($1,305K).

Collaborators:
Sadaf Alam (Swiss National Supercomputing Centre), David H. Bailey (LBNL), Kevin Barker(PNNL), Eric Bohm(UIUC), Roy Campbell (HPCMO), Jacqueline H. Chen (SNL), Pietro Cicotti(SDSC), Chris Daley (Chicago), Larry Davis (HPCMO), Bronis de Supinski (LLNL), Anshu Dubey (Chicago), Robert Fiedler (NCSA), Robert J. Fowler (RENCI), Todd Gamblin(LLNL), William Gropp (Illinois), Dan Gunter (LBNL), Torsten Hoefler (Illinois), Adolfy Hoisie (PNNL), Paul Hovland (ANL), Heike Jagode (Tennessee), Laxmikant Kale(UIUC), Karen Karavanic (Portland State), Darren Kerbyson (PNNL), Dimitri Komatitsch (U of Pau), William Kramer (NCSA), Sameer Kumar (IBM), Michael Laurenzano (SDSC), Nicolas Le Goff (U of Pau), Gabriel Marin (ORNL), David Michéa (U of Pau), John Mellor-Crummey (Rice), Mitesh Meswani (SDSC), David Michéa (U of Pau), Shirley Moore (Tennessee), Frank Mueller (NC State), Henry Newman (Instrumental), Boyana Norris (ANL), Catherine Olschanowsky (SDSC), Steve Poole (ORNL), Daniel J. Quinlan (LLNL), Daniel A. Reed (Microsoft) , Philip C. Roth (ORNL), Martin Schulz (LLNL), Sameer Shende (Oregon), Allan Snavely (LLNL) , Wyatt Spear (Oregon), Erich Strohmaier (LBNL), Nathan Tallent (Rice), Rajeev Thakur (ANL), Mustafa Tikir (Google), Ananta Tiwari (SDSC), Jeroen Tromp(Princeton), Jeffrey Vetter (ORNL), Bill Ward (ERDC), Patrick Worley (ORNL), Nicholas Wright (LBNL)

Graduate Advisor:
Richard Herz (UCSD)