

Publications and Presentations

Simulation

Jason Liu, , Nathanael Van Vorst, Scott Mann, and Keith Hellman. A real-time network simulation infrastructure based on openvpn. *Journal of Systems and Software*. Accepted August 2008

Jason Liu, Scott Mann, Nathanael Van Vorst, and Keith Hellman. An open and scalable emulation infrastructure for large-scale real-time network simulations. In *INFOCOM*, pages 2476–2480. IEEE, 2007

Parallel Computing

Keith Hellman, David Bloomquist, and Roman Tankelevich. Parallel find for distributed and network filesystems, April 2008. Poster presentation at Colorado Celebration of Women in Computing Conference

Wireless Sensor Networks

Keith Hellman. Learning to live — a wireless sensor network protocol using reinforcement learning. Master's thesis, Colorado School of Mines, Golden, CO, 2006

Keith Hellman and Michael Colagrosso. Investigating a wireless sensor network optimal lifetime solution for linear topologies. *Journal of Interconnection Networks*, 7(1):91–99, March 2006

Keith Hellman and Michael Colagrosso. Increasing sensor network lifetime by identifying and leveraging nodes with excess energy in heterogeneous networks. In *Proceedings of the 8th International Symposium on Parallel Architectures, Algorithms and Networks (ISPAN 05)*, pages 542–546, Las Vegas, Nevada, 2005

Education

Keith Hellman. “Do you like brussel sprouts?” How to implement population surveys with embarrassing questions, September 2006. Presentation at Colorado Council of Teachers of Mathematics Convention

Keith Hellman. The craftman's questionable son, November 2005. Presentation at Colorado Science Convention

Catherine Skokan and Keith Hellman. Integrating engineering into mathematics and science classrooms, October 2005. Presentation at Next Steps Institute

Education

Phd Candidate Mathematics & Computer Science

August 2007–Ongoing

Colorado School of Mines (Golden, Colorado)

- Graduate Teaching Fellowship, CSCI261 *Introduction to Programming in C++*.
- CSCI261 course coordinator spring 2009.

M.S. Mathematics & Computer Science

August 2004 –May 2006

Colorado School of Mines (Golden, Colorado)

- Thesis: *Learning to Live — A Wireless Sensor Network Protocol Using Reinforcement Learning*.
- Middle-School Teaching Fellowship (principal investigators Dr. Skokan and Dr. Moskal, CSM).

Graduate Student at Large

1995–1996

University of Illinois Circle Campus (Chicago, Illinois)

- Medical Imaging, Pattern Recognition

B.S. in Applied Mathematics

1990

The University of Chicago (Chicago, Illinois)

- Concentration in statistics
- Passed Society of Actuaries Exam 100

Interests

- **Social Dancing:** Many different forms including: swing, Argentine tango, Viennese waltz, and Contra. Taught East Coast Swing for seven years at Denver's *Mercury Cafe*.
- **Chess**