

Roisin Langan

Bio:

Roisin is a doctoral student in Energy Science and Engineering at ORNL and the University of Tennessee. Roisin joined the Climate Change Science Institute in 2014 and currently works with Dr. Katherine Evans on the development of tools and datasets to evaluate ice sheet models known as LIVV, Land Ice Verification and Validation. Prior to joining the CCSI, Roisin attended the University of California Santa Barbara where she obtained a B.S. in Mathematical Sciences. She then spent a year-long internship with the Applied and Computational Mathematics group at ORNL during which she worked on modeling extreme precipitation in the community land model. Her research interests include earth system modeling, extreme weather, climate data analysis & feature extraction, mesoscale phenomena, climate variability, and the role of the Arctic.

Advisor:

Katherine Evans

Education:

B.S. Mathematical Science, University of California Santa Barbara

Awards, Sponsorships, Fellowships, etc:

- DOE Top 100 Research and Development 2008
- RAMS Best Abstract Award 2013
- ORNL Nuclear Engineering Science and Laboratory Synthesis Fellowship (2013, 2014)
- ORNL Research Alliance in Math and Science Fellowship (2013)
- LANL Technical Research Fellowship, (2008, 2009, 2010, 2011)

Talks

- Workshop on 'Data Mining in Earth System Science', International Conference on Computational Science, Cairns, Australia, Jun. 2014.
- Mini-symposium on 'Uncertainty Quantification Driven by Large-scale Applications', SIAM Uncertainty Quantification Conference, Savannah Georgia, Mar. 2014.
- Research Alliance in Math and Science Research Symposium, Aug. 2013.

Poster presentations

- American Geophysical Union Annual Conference, San Francisco, 2013.
- Oak Ridge National Laboratory Student Symposium, 2013.
- Oak Ridge National Laboratory Research Alliance in Math and Science Honorary Banquet, Aug. 2013.
- Los Alamos National Laboratory Student Symposium, Aug. 2011.

Professional Development

- scheduled: 2015 CESM Tutorial, The National Center for Atmospheric Research, Boulder, CO, Aug. 2015.
- CMD-IT National Laboratories Professional Development Conference for Underrepresented Participants, Oak Ridge National Laboratory, 2013.
- Crash-course in Supercomputing, Oak Ridge National Laboratory, 2013.

Publications:

R. Langan, R. Archibald, M. Plumlee, S. Mahajan, D. Ricciuto, C. Yang, R. Mei, J. Mao, X. Shi and J. S. Fu. Stochastic Parameterization to Represent Variability and Extremes in Climate Modeling. *Procedia Computer Science*, 29, 2014.

Z. Wang, C. L. Morris, M. F. Makela, J. D. Bacon, E. E. Baer, M. I. Brockwell, B. J. Brooks, D. J. Clark, J. A. Green, S. J. Greene, G. E. Hogan, **R. Langan** et. al. Nuclear Instruments and Methods in Physics Research Section A, 605(3), 2009.

Links:

<http://cire.utk.edu/grads/langan.shtml>

<http://climatechangescience.ornl.gov/content/intern-roisin-langan-wins-best-abstract-award-student-poster-session>

<http://www.ornl.gov/recent-bachelors-associates/profile-roisin-lange.htm>