

# Luke McGuire

## Permanent Address

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## University Address

University of Arizona  
Program in Applied Mathematics  
617 N. Santa Rita Ave.  
Tucson, AZ 85716

## Education

University of Arizona, Tucson, AZ (*August 2008-present*)

- PhD Student, Program in Applied Mathematics
- MS, Applied Mathematics (*December 2009*)
- Cumulative GPA: 3.81

Bucknell University, Lewisburg, PA (*June 2004-May 2008*)

- BS, Mathematics, Magna Cum Laude (*May 2008*)
- Cumulative GPA: 3.75

## Honors/Awards

- Stadler Center Literary Prizes for Bucknell Undergraduates: Honorable Mention Prose (*Spring 2007*)
- Phi Beta Kappa Honor Society (*Spring 2008-present*)
- University of Arizona: S-STEM fellowship (*August 2008-August 2009*)
- University of Arizona: awarded VIGRE research funding (*Spring 2011*)

## Conferences Attended

- American Meteorological Society student conference, New Orleans, LA, poster presentation (*January 2008*)
- AGU Chapman Conference on Source to Sink Systems Around the World and Through Time, Oxnard, CA, poster presentation (*January 2011*)

## Presentations

- Modeling hillslope evolution. University of Arizona Applied Mathematics Brown Bag Seminar (*April 2010*)
- The formation of channels. University of Arizona Applied Mathematics Brown Bag Seminar (*February 2011*)
- Modeling multiphase flows and debris fan development. University of Arizona Applied Mathematics Brown Bag Seminar (*September 2011*)
- Controls on the formation and geometry of rill networks . University of Arizona Modeling, Computation, Nonlinearity, Randomness, and Waves Seminar (*October 2011*)

## Computer Skills

- Languages: C
- Development Environments: MATLAB, IDL
- Experience with Unix/Linux

## Activities/ Professional Societies

- Bucknell University Cross Country and Track and Field Team, Member (*2004-2008*)
- Society for Industrial and Applied Mathematics (SIAM), Member (*2007-present*)
- Phi Beta Kappa Honor Society, Member (*Spring 2008-present*)
- University of Arizona SIAM chapter, Treasurer (*Summer 2010-Summer 2011*)

**Experience**

- Calculus Tutor, Bucknell University Mathematics Department, Lewisburg, PA (*August 2006-May 2008*)
- National Weather Center Research Experience for Undergraduates, University of Oklahoma, Norman, OK (*May 2007-August 2007*)
- Instructor, Math 112: College Algebra, University of Arizona, Tucson, AZ (*August 2009-Dec 2009, August 2010-Dec 2010*)
- Summer Intern, Lawrence Livermore National Laboratory, Atmospheric, Earth, and Energy Division, Livermore, CA (*June 2010-August 2010*)
- Research Assistant, Department of Geosciences, University of Arizona (*Jan 2010-May 2010, August 2011-Dec 2011*)

**Publications**

Pelletier, J. D., L. McGuire, J. Ash, T. M. Engelder, L. Hill, K. Leroy, C. Orem, S. Rosenthal, M. Trees, C. Rasmussen, and J. D. Chorover (2011), *Calibration and testing of upland hillslope evolution models in a dated landscape: Banco Bonito, New Mexico, USA*, J. Geophys. Res., doi:10.1029/2011JF001976.