Colin L. Clark

Program in Applied Mathematics
The University of Arizona

206-940-3037
clark@math.arizona.edu

Personal Profile

I am a 6^{th} year graduate student in Program in Applied Mathematics researching the spatial heterogeneity of porous media under my advisor, Larry Winter.

Education

Candidate for Ph.D. in Applied Mathematics with Hydrology Minor 2011 - Present
University of Arizona, Tucson, AZ
Research interests include:
- Fluid flow through explicit pore stucturesand through heterogeneous porous media,
- Integral geometry and statistical characterization of random structures,
- Monte Carlo Methods applied to reconstruction algorithms for porous media.

Coursework emphasis in numerical analysis, probability, subsurface hydrology.

B.S. in Mathematics & B.A. in French 2002 - 2007
Walla Walla University, College Place, WA
W.L.Putnam competition - 89^{th} percentile

Programming Languages & Software

Extensive Use: Matlab, LaTeX.
Working Familiarity: Unix/Linux, EULAG, Paraview.

Teaching & Employment History

GTEAMS Fellow 2013 - 2015
University of Arizona, Tucson, AZ

Participation as a graduate fellow in the NSF-funded GK-12 program 'GTEAMS' which partners graduate students with K-12 classrooms to promote math education and awareness. Continued participation in the UA-funded extension program.
GTEAMS:
- Collaborated with 8^{th} grade mathematics teacher at Flowing Wells Junior High School.
- Presented special topic lessons on probability, geometry and graph theory to connect mathematics to real-world applications.
- Hosted the after-school math club.
- Helped develop a year-long stock market project for the students.

GTEAMS Extension Program:
- Collaborated with 7^{th} grade math teacher at Roberts Naylor Middle School in the GTEAMS extension program.
- Presented special topic lessons on probability, geometry and graph theory to connect mathematics to real-world applications.

Graduate Teaching Assistant 2012 - 2016
University of Arizona, Tucson, AZ

Classroom instruction, lesson preparation, and assessment by assigning and grading homework and exams for courses in:
- Math 116: Business Calculus Spring 2017
- Math 129: Calculus II Fall 2016

- Math 129: Calculus II — Spring 2016
- Math 122: Calculus I — Fall 2015
- Math 263: Biostatistics — Spring 2015
- Math 116: Business Calculus — Fall 2014
- Math 112: College Algebra — Summer 2014
- Math 112: College Algebra — Spring 2013
- Math 112: College Algebra — Fall 2012

High School Math and Science Teacher 2007 - 2009
Gateway High School, Harare, Zimbabwe

Presentations

Effective Conductivity in Highly Heterogeneous Composite Media 3/2017
El Día Del Agua Y La Atmósfera Tucson, AZ

A Simulated Annealing Algorithm for the Reconstruction of Porous Media 11/2016
Modeling and Computation Seminar Tucson, AZ

Matlab for Grad School 9/2016
Student SWIG Talk Tucson, AZ

A Simulated Annealing Algorithm for the Reconstruction of Porous Media 9/2016
Student Brownbag Talk Tucson, AZ

Command Line, Shell Scripting and Remote Access to the Math Dept. 11/2015
Student SWIG Talk Tucson, AZ

Statistical Characterization of Porous Media 10/2014
Student Brownbag Talk Tucson, AZ

Ti*k*Z - a TEX approach to graphics 9/2013
Student SWIG Talk Tucson, AZ

Effects of Spatial Variablity in Flow through Porous Media 3/2013
Student Brownbag Talk Tucson, AZ

Workshops & Conferences Attended

Visiting Student 6,7/2016
Politecnico di Milano Milan, Italy

Polytopal Element Methods in Mathematics and Engineering 10/2015
Georgia Institute of Technology Atlanta, GA

Geometry and Physics of Spatial Random Systems 9/2015
Karlsruhe Institute of Technology Bad Herrenalb, Germany

Frontier Days in Probability 5/2014
Department of Mathematics, University of Arizona Tucson, AZ