Chad A.S. Mullikin

Curriculum Vitae

Current Address

8 Pirates Lane, Spanish Fort, AL 36527
chad@mullikin.org
Phone: (706) 614-3521
http://www.mullikin.org/chad

Education

Ph.D., Mathematics, University of Georgia, August, 2006.

- B.J. Ball Scholarship, 2003.
  $2500 cash award for most progress made towards the Ph.D.
- University Outstanding Teaching Assistant Award, 2004.
  Nominees and winners are selected by the University based on student evaluation.
- Department Outstanding Graduate Teaching Award, 2005.
  Nominees and winners are selected by the mathematics faculty.
- Thesis Advisor: Jason Cantarella. Thesis Title: "On Length Minimizing Curves with Distortion Thickness Bounded Below and Distortion Bounded Above".

M.S., Mathematics, Georgia Institute of Technology, May, 2000.

- Member Pi Mu Epsilon.

B.S., University of West Georgia, 1998.

- Member Kappa Mu Epsilon.
- Marion Crider Award.
  $1000 cash award for excellence in mathematics.

Teaching

Assistant Professor, Spring Hill College, August 2006 - Present.

- 2 sections of precalculus, 3 sections of differential calculus, 1 section of integral calculus, 1 section of linear algebra, 1 section of introductory topology. Rated between "superior" and "outstanding" by students.

Graduate Student, University of Georgia, 2000-2006.

- 2 sections of differential calculus, 2 sections of discrete mathematics, 4 sections of differential calculus labs, and 1 section of preparing new graduate students to teach classes. Rated between "superior" and "outstanding" by students.
- Co-leader in VIGRE summer undergraduate research experiences "Massively parallel computation of geometrically optimal knots" and "Mathematics and Visualization."

Graduate Student, Georgia Institute of Technology, 1998-2000.

- 1 section of integral calculus, 1 section of calculus for computer science majors, and several sections of recitation for differential calculus. Challenge program for minority students in which my responsibilities included leading recitation sections as well as individual tutoring.

Publications

(1) "Upper Bounds for Ropelength as a function of Crossing Number".
with J. Cantarella, X.W. Faber. *Topology and its Applications* 135 (2003) no. 1-3, p. 253-264.

- We find an upper bound on the ropelength of a knot proportional to the square of its crossing number.

(2) "A Class of Curves In Every Knot Type Where Chords of High Distortion are Common".
Topology and its Applications 154 (2007) no. 14, p. 2697-2708.

- We show that pairs of points with high distortion are very common on curves of minimum length in the set of curves in a given knot type with distortion bounded above and distortion thickness bounded below.

Administrative Duties

Science Division Web Development

- Served as liaison with web developer to build departmental web pages. Duties involve gathering and posting content in the format prescribed by Spring Hill's web developer.

Freshman Seminar Leader

- Familiarize and advise group of incoming freshman with the courses offered at Spring Hill as well as provide strategies intended to prepare them for success.

Math Club Faculty Advisor

- Established Math Club at Spring Hill College. Organize weekly meetings consisting of talks and small projects.

Member Curriculum Committee

- Review and revise the core curriculum at Spring Hill College.

Invited Talks

University of Georgia Department of Mathematics Geometry/Topology Seminar, Multiple Talks 2003-2005

University of Georgia Department of Mathematics VIGRE Seminar, Multiple Talks 2003-2005.

Emory University Department of Mathematics Geometry/Topology Seminar, October, 2005.

Annual AMS Meeting January, 2006.

University of South Alabama Department of Mathematics Colloquium, October, 2006.