

Curriculum Vitae

Beyza Çalışkan Aslan

Office: Department of Mathematics, University of Alabama at Birmingham
452 Campbell Hall, 1300 University Boulevard, Birmingham, AL 35294-1170

Home: 918 Lakeshore Ridge, Birmingham, AL 35211

Office: (205) 934-2154 Fax: (205) 934-9025

Home: (205) 769-9904 Cell: (352) 328-1523

E-mail: aslan@math.ufl.edu

EDUCATION

Doctor of Philosophy, August 2007

University of Florida
Applied Mathematics

Master of Science, May 2003

University of Florida
Applied Mathematics

Bachelor of Science, June 1999

Middle East Technical University, Turkey
Mathematics

EMPLOYMENT HISTORY

Visiting Assistant Professor, January 2008-August 2008

Department of Mathematics at the University of Alabama in Birmingham, Birmingham, AL, USA

Postdoctoral Research Associate, funded by NSF, August 2007-December 2007

Department of Mathematics at the University of Florida, Gainesville, USA

- *Analysis of lightning data obtained during the August 18, 2004, storm over Langmuir Laboratory, New Mexico, USA*
- *Application of the continuous model for lightning using boundary element method*

Research Assistant, May 2007-August 2007

Department of Mathematics at the University of Florida, Gainesville, USA

- *Analysis of lightning data obtained during the August 18, 2004, storm over Langmuir Laboratory, New Mexico, USA*

Research Assistant, May 2005-August 2005

Department of Mathematics at the University of Florida, Gainesville, USA

- *Development of the continuous model for lightning discharge in three-dimension*

Teaching Assistant, August 2001-August 2007

Department of Mathematics at the University of Florida, Gainesville, USA

- *Assisting for the Undergraduate Pre-calculus, Calculus-1, and Calculus-2 Courses*
- *Lecturing Basic College Algebra, Pre-Calculus, Trigonometry, Calculus-1, and Calculus-2*
- *Leading the online program for Calculus students*

Teaching Assistant, January 2000-June 2000

Department of Mathematics at the Middle East Technical University, Ankara, Turkey

- *Assisting for the Undergraduate Calculus-1 and Calculus-2 Courses*

DISSERTATION

Topic: *Continuous approach to the lightning discharge*

Supervisor: Dr. William W. Hager, Professor, University of Florida

RESEARCH INTERESTS

Mathematical Modeling, Partial Differential Equations, Numerical Analysis

PUBLICATIONS

- *Analysis of charge transport during lightning using balloon borne electric field sensors and LMA*, William W. Hager, Richard G. Sonnenfeld, Beyza Caliskan Aslan, Gaopeng Lu, William P. Winn, and William L. Boeck, (2007), J. Geophys. Res., 112, D18204, doi:10.1029/2006JD008187
- *The change in electric potential due to lightning*, William W. Hager and Beyza Caliskan Aslan, M2AN Math. Model. Numer. Anal., (submitted, 2007)
- *A generalized eigenproblem for the Laplacian which arises in lightning*, Beyza Caliskan Aslan, William W. Hager, and Shari Moskow, J. Math. Anal. Appl., (accepted, 2007)
- *Continuous approach to the lightning discharge*, Beyza Caliskan Aslan, Ph.D Thesis, 2007
- Interviewed and contributed to SIAM News (Oct., 2004), monthly newsletter published by SIAM (Society of Industrial and Applied Mathematics), articles concerning SIAM Gators Student Workshop:
 - * *By Students for Students: SIAM Gators Welcome Chapters Nationwide to Florida Conference*
 - * *Accolades for an Accomplished Community*

PRESENTATIONS and PROFESSIONAL ACTIVITIES

- *Lightning charge transport during a thunderstorm near Langmuir Laboratory on 18 August 2004*, AGU Fall Meeting, Dec. 10-14, 2007, San Francisco, California (poster presentation).
- *A continuous approach to the lightning discharge*, Joint Mathematics Meetings, Jan. 5-8, 2007, New Orleans, Louisiana (contributed talk).
- *A continuous approach to the lightning discharge*, AGU Fall Meeting, Dec. 11-15, 2006, San Francisco, California (poster presentation).
- *Sprites, Blue Jets, and Elves*, SIAM Gators Weekly Seminar, Apr. 6, 2006, Gainesville, Florida (Invited talk).

- *A continuous approach to the lightning discharge - one-dimensional case*, AGU Fall Meeting, Dec. 5-9, 2005, San Francisco, California (poster presentation).
- *A continuous approach to the lightning discharge – one-dimensional case*, SIAM-SEAS Sectional Meeting, Mar. 24-25, 2005, Charleston, South Carolina (contributed talk).
- *A continuous approach to the lightning discharge – one-dimensional case*, SIAM Gators Weekly Seminar, Nov. 4, 2004, Gainesville, Florida (Invited talk).
- *SIAM (Society of Industrial and Applied Mathematics) Annual Meeting*, Jul. 12-16, 2004, Portland, Oregon (SIAM sponsored chapter representative).
- *Chair* of the organization committee for the SIAM Gators Student Workshop during the Special Year of Applied Mathematics 2003-2004 (Funded by NSF).
- *Minimum reflection coatings*, Southeastern Conference on Applied Mathematics, Nov. 9-11, 2001, Raleigh, North Carolina (poster presentation).

HONORS AND AWARDS

- University of Florida Chapter of SIAM (SIAM Gators), President, 2003-2004
- University of Florida Chapter of SIAM (SIAM Gators), Vice President, 2002-2003
- Graduate Student Council Travel Grant, 2001, 2005 (twice), and 2007
University of Florida
- SIAM Travel Award, 2004
Invited to the SIAM Annual Meeting in Portland, Oregon, as a chapter representative after successfully leading the organization of SIAM Student Workshop at UF.

PROFESSIONAL AFFILIATIONS

American Mathematical Society (AMS), since 2000

Society of Industrial and Applied Mathematics (SIAM), since 2003

American Geophysical Union (AGU), since 2005

PROGRAMMING ENVIRONMENTS and LANGUAGES

UNIX, Windows, MS-DOS, Tex, Matlab, Maple, C

LANGUAGES

Turkish (native), English (fluent), German (basic), French (basic)