

Sergey Kushnarev

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Education

Brown University Division of Applied Math Providence, RI	PhD , May 2010, GPA 3.9/4.0 <i>Advisor</i> : Prof. David Mumford MSc , May 2004
Moscow State University Department of Mechanics and Mathematics (mech-mat) Moscow, Russia	Specialist degree , 1998–2003 “Red Diploma” (graduated with distinction) <i>Advisor</i> : Prof. Yaroslav V. Tatarinov

Research Experience

Research Interests	Riemannian Metrics and Geometry of Shape Spaces, Euler-Poincare equations on the groups of diffeomorphisms, Numerical Methods for Finding Geodesics, Mathematical Representation of Shapes, Pattern Theory, Computer Vision.
Sept 2010–current	Research Fellow at the Computational Functional Anatomy Lab, Division of Bioengineering, <i>National University of Singapore</i> . Principal Investigator: Assistant Prof. Anqi Qiu.
2005–May 2010	Research assistant under Prof. David Mumford, Division of Applied Mathematics, <i>Brown University</i> .
2000–2003	Research student under Prof. Yaroslav V. Tatarinov, Department of Mechanics and Mathematics, <i>Moscow State University</i> .

Publications

- Paper “Teichons: Soliton-like Geodesics on Universal Teichmüller Space”, *Experimental Mathematics*, Volume 18, Number 3 / 2009.
- “Computing Geodesics with the Weil-Petersson Metric via the Shooting Method”, paper in preparation.
- Presentation at *Johns Hopkins University*, the Center for Imaging Science, August 2007.
- Presentation at *Johns Hopkins University*, the Center for Imaging Science, January 2009.
- Presentation at *Johns Hopkins University FRG meeting*, Annapolis, MD, April 2009.
- Presentation at the *University of California, Los Angeles*, November 2009.
- Presentation at the *Brown University, Providence*, April 2010.
- Presentation at the *Institute for Mathematical Sciences, Imperial College, London*, May 2010.
- Presentation at the *Division of Bioengineering, National University of Singapore*, November 2010.

Teaching Experience

- Spring 2006** **Modeling the World with Mathematics (undergrad),**
Division of Applied Math, Brown University.
Co-teacher with Prof. David Mumford.
- Spring 2006** **Mathematics of Shape (grad),**
Division of Applied Math, Brown University.
Teaching Assistant. Instructor: Prof. David Mumford.
- 2004–2005** **Statistical Inference I, II (undergrad/grad),**
Division of Applied Math, Brown University.
Teaching Assistant. Instructors: Prof. Elie Bienenstock, Prof. Donald McClure.
- Fall 2004 – Spring 2007** **Tutor at the Mathematical Resource Center,**
Brown University.
Tutoring undergraduate students on a range of mathematical classes.
- Fall 2010 – Spring 2011** **Differential Geometry,**
Division of Bioengineering, National University of Singapore.
Instructor for the course at the Computational Functional Anatomy Laboratory.

Professional Development

The Sheridan Center for Teaching and Learning in Higher Education, Certificate I, Brown University, 2005.
Participated in a year-long Sheridan Teaching Seminar and related workshops.
http://www.brown.edu/Administration/Sheridan_Center/certificateprograms/sts.html

Teaching Consultant, Brown University, 2005-2006.
Observe faculty and graduate students lectures, discussion sections, labs; provide feedback.
http://www.brown.edu/Administration/Sheridan_Center/consulting/itc.html

Honors and Affiliations

- 2005–2010:** Research Assistantship, *Brown University.*
2004–2005: Teaching Assistantship, *Brown University.*
2003–2004: University Fellowship, *Brown University.*
2003: *Gold Medal*, award for graduating with distinction, *Moscow State University, Moscow, Russia.*
2003–present: Member of the American Mathematical Society.

References

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Prof. Stuart Geman
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Prof. Peter W. Michor
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Assistant Prof. Anqi Qiu, Ph.D
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