

Sergey Norin

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Professional Experience:

Princeton University, Princeton, NJ
Instructor

September 2007 -

Georgia Institute of Technology, Atlanta, GA
Visiting Assistant Professor

June 2006 – June 2007

D. E. Shaw & Co., New York, NY
Quantitative Analyst

August 2005 – June 2006

Georgia Institute of Technology, Atlanta, GA
Research Assistant of Prof. Robin Thomas,
Teaching Assistant

January 2003 – August 2005

Education:

Georgia Institute of Technology, Atlanta, GA
Ph.D. in Mathematics

August 2005

Algorithms, Combinatorics and Optimization (ACO) program

Thesis Title: *Matching structure and Pfaffian orientations of graphs.*

St. Petersburg State University, St. Petersburg, Russian Federation
M.S. in Mathematics (with honors)

July 2001

Thesis Title: *A polynomial lower bound for the size of a k -min-wise independent set of permutations.*

Research Interests:

Graph Theory, Combinatorics

Honors and Awards:

NSF Grant DMS-0701033, 2007-2010

Best Thesis Award, School of Mathematics, Georgia Institute of Technology, 2006

Graduate Excellence Award, College of Sciences, Georgia Institute of Technology, 2004

George Soros Award, 1996-97

President of Russian Federation Award, 1995-96

International Mathematical Olympiad, Gold Medal (3 times, 1994-96)

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Publications:

Serguei Norine. Drawing 4-Pfaffian graphs on the torus, *to appear in Combinatorica*.

Serguei Norine. Pfaffian graphs, T-joins and crossing numbers, *to appear in Combinatorica*.

Serguei Norine and Robin Thomas. Pfaffian labelings and signs of edge colorings, *to appear in Combinatorica*.

Matthew Baker and Serguei Norine. Riemann-Roch and Abel-Jacobi theory on a finite graph, *Adv. Math.* **215(2)** (2007), 766-788.

Serguei Norine and Robin Thomas. Generating bricks, *J. Comb. Theory B* **97** (2007), 769-817

Mohammad Ghebleh, Daniel Kral, Serguei Norine and Robin Thomas. The circular chromatic index of flower snarks, *Electron. J. Combin.* **13(1)** (2006), #N20, 7pp.

Serguei Norine, Paul Seymour, Robin Thomas and Paul Wollan. Proper minor-closed families are small, *J. Comb. Theory B* **96** (2006), 754-757

Serguei Norine and Robin Thomas. Minimal bricks, *J. Comb. Theory B* **96** (2006), 505-513.

Tomas Kaiser, Daniel Kral and Serguei Norine. Unions of perfect matchings in cubic graphs. *Topics in discrete mathematics*, 225-230, Algorithms Combin., **26**, Springer, Berlin, 2006.

Serguei Norine. Drawing Pfaffian graphs, *Graph Drawing, 12th International Symposium, Lecture Notes in Computer Science*, **3383** (2005), 371-376.

Serguei Norine, C. H. C. Little and Kee L. Teo. A new proof of a characterisation of Pfaffian bipartite graphs, *J. Comb. Theory B* **91** (2004), 123-126.

Sergey Norin. A polynomial lower bound for the size of a k-min-wise independent set of permutations, *J. Math. Sci. (N. Y.)* **118** (2003), no. 2, 4994-5000.

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Submitted papers:

Matthew Baker and Serguei Norine. Harmonic morphisms and hyperelliptic graphs.

Deborah E. Berg, Serguei Norine, Francis Edward Su, Robin Thomas and Paul Wollan. Set intersections, perfect graphs, and voting in agreeable societies.

Serguei Norine. On two questions about circular choosability.

Serguei Norine and Jean-Sébastien Sereni. Graphs with full rank 3-color matrix and few 3-colorings.

Serguei Norine and Robin Thomas. Minimally non-Pfaffian graphs.

Serguei Norine, Zhishi Pan and Xuding Zhu, Bounds on circular consecutive choosability.

Serguei Norine, Tsai-Lien Wong and Xuding Zhu. Circular choosability via combinatorial Nullstellensatz.

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Conference Presentations:

6th Slovenian International Conference on Graph Theory, Bled, Slovenia, June 2007, *Invited minisymposium talk*

Oberwolfach conference on Graph Theory, Oberwolfach, Germany, March 2007, *Invited*

Oberwolfach conference on Graph Theory, Oberwolfach, Germany, January 2005, *Invited*

The 2004 NZIMA Conference in Combinatorics and its Applications, Lake Taupo, New Zealand, December 2004

International Workshop on Combinatorial and Computational Aspects of Optimization, Topology and Algebra (ACCOTA), San Miguel de Allende, Mexico, November 2004, *Invited*

Special Session on Graph Theory and Matroid Theory at the AMS Southeastern Sectional Meeting, Nashville, October 2004, *Invited*

12th International Symposium on Graph Drawing, New York, September 2004

SIAM Conference on Discrete Mathematics, Nashville, June 2004, *Invited minisymposium talk*

Advances in Graph and Matroid Theory, The Ohio State University, Columbus, December 2003, *Invited*

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Seminar Presentations:

Discrete Mathematics Seminar, Columbia University, September 2007

Discrete Mathematics Seminar, Princeton University, September 2007

Graph Theory Seminar, Georgia Institute of Technology, April 2007

CWI-DIAMANT Seminar on Combinatorics and Optimization, Amsterdam, April 2007

Discrete Mathematics Seminar, Princeton University, April 2007

Applied Mathematics Seminar, National Sun Yat-sen University, Kaohsiung, Taiwan, March 2007 (3 talks)

Combinatorics Seminar, Massachusetts Institute of Technology, February 2007

Combinatorics and Optimization Seminar, University of Waterloo, January 2007

Graph Theory Seminar, Georgia Institute of Technology, September 2006

Combinatorics Seminar, Georgia Institute of Technology, February 2005

Combinatorics Seminar, Georgia Institute of Technology, October 2004

Discrete Mathematics Seminar, Princeton University, September 2004

ACO Seminar, Georgia Institute of Technology, April 2004

Graph Theory Seminar, Georgia Institute of Technology, January 2004

Combinatorics Seminar, Georgia Institute of Technology, April 2003

Discrete Mathematics Seminar, Steklov Institute of Mathematics, St. Petersburg, Russia, April 2001

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Student supervision:

Yoko Watanabe (MSc, Summer 2007)

Teaching experience:

Princeton University:

Fall 2007

MAT104 (Calculus)

Georgia Institute of Technology:

Spring 2007

MATH 7016 (Combinatorics)

Fall 2006

MATH 2602 (Linear and Discrete Mathematics)

Recitations:

Fall 2004

MATH 1512 (Honors Calculus)

Fall 2004

MATH 2602 (Linear and Discrete Mathematics)

Professional service:

Referee for Discrete Mathematics, Journal of Combinatorial Theory Series B, Journal of Graph Theory and SIAM Journal of Discrete Mathematics.