

David Speyer

Address: David Speyer, Department of Mathematics, 970 Evans Hall, University of California, Berkeley CA, 94720

Email: speyer@math.berkeley.edu

Home Page: <http://math.berkeley.edu/~speyer>

Citizenship: USA

Current Position

Graduate Student of Bernd Sturmfels at UC Berkeley

Mathematical Research Employment

Research Assistant to Lior Pachter: Spring 2004

Research Assistant to Bernd Sturmfels: Fall 2003

Researcher, Research Experiences in Combinatorics at Harvard (REACH, run by Jim Propp): Fall 2001 and Spring 2002

Consultant to Henry Cohn, Math Theory Group, Microsoft: Winter 2001

Teaching Experience

Graduate Student Instructor, Math 249 (Combinatorial Commutative Algebra) UC Berkeley: Fall 2004

Graduate Student Instructor, Math 1b (Calculus) UC Berkeley: Spring 2003, Spring 2005

Course Assistant, Math 23 (Honors Multivariable Calculus) Harvard: Spring 2001

Program in Mathematics for Young Scientists (PROMYS): Counselor, Summer 1999 and 2000, Head Counselor Summer 2001 and 2002

Other Employment

Technician on Call, Harvard Media and Technology Services, supervisor Amy Thompson: 1999-2002

Education

Currently pursuing PhD in Mathematics at UC Berkeley

A.B. in Mathematics, *magna cum laude*, Harvard University, Class of 2002

Awards

Ranked between Sixth and Fifteenth Place, Putnam Competition 2002

First Alternate, USA Math Team, 1998

Papers

Every Tree is 3-Equitable *Discrete Mathematics* **220**, (2000) 283-289 with Zsuzsanna Szansiszlo

Perfect Matchings and the Octahedron Recurrence preprint math.CO/0402452

The Cube Recurrence with Gabriel Carroll *Electronic Journal of Combinatorics*, **11** (2004) #R73 math.CO/0403417

The Tropical Grassmannian with Bernd Sturmfels *Advances in Geometry*, Volume 4, Issue 3 (2004). Pages 389 - 411 [math.AG/0304218](#)

Reconstructing Trees from Subtree Weights with Lior Pachter *Applied Mathematics Letters* **17** (2004), p. 615 - 621. [math.CO/0311156](#)

Horn's Problem, Vinnikov Curves and the Hive Cone, *Duke Mathematical Journal*, **127** to appear. [math.AG/0311428](#)

The Tropical Totally Positive Grassmannian, with Lauren Williams *Journal of Algebraic Combinatorics*, to appear. [math.CO/0312297](#)

An Arctic Circle Theorem for Groves, with Kyle Petersen, presented at Formal Power Series and Algebraic Combinatorics 2004, *Journal of Combinatorial Theory: Series A*, to appear [math.CO/0407171](#)

Tropical Mathematics, with Bernd Sturmfels, expansion of coauthor's Clay Public Lecture at Park City Mathematics Institute, [math.CO/0408099](#)

A Broken Circuit Ring, with Nick Proudfoot preprint [math.CO/0410069](#)

Tropical Linear Spaces preprint [math.CO/0410455](#)