

Selected Articles by Research Fellows

DANIEL BISS

“Large annihilators in Cayley-Dickson algebras,” with Daniel Dugger and Daniel C. Isaksen
www.front.math.ucdavis.edu/math.RA/0511691-250

“On the zero-divisors in the 32-dimensional Cayley-Dickson algebra.”

MANJUL BHARGAVA

“Higher composition laws III: The parametrization of quartic rings,” *Ann. of Math.*, vol. 159, no. 3 (2004), 1329–1360.

“The density of discriminants of quartic rings and fields,” *Ann. of Math.* 162 (2005), no. 2, 1031–1063.

ALEXEI BORODIN

“Markov processes on partitions, probability theory and related fields,” with G. Olshanski, vol. 135 (2006), 84–152.

“Averages of characteristic polynomials in random matrix theory,” with E. Strahov, *Communications on Pure and Applied Mathematics*, vol. LIX (2006), 161–253.

MARIA CHUDNOVSKY

“The Strong Perfect Graph Theorem,” with N. Robertson, P. Seymour and R. Thomas, to appear in the *Ann. of Math.*

“The structure of Clawfree Graphs,” with Paul Seymour, *Surveys in Combinatorics 2005*, London Math Society Lecture Note Series, vol. 327.

BEN GREEN

“An inverse theorem for the Gowers U_3 norm,” with Terence Tao, www.arxiv.org/math.NT/0503014

“Freiman’s theorem in an arbitrary abelian group,” with Imre Ruzsa, to appear in *Journal of London Math. Soc.*, www.arxiv.org/math.NT/0505198

SERGEI GUKOV

“The superpolynomial for knot homologies,” with N. M. Dunfield and J. Rasmussen, to appear in the *Experiment. Math.*, www.arxiv.org/abs/math.GT/0505662

“Matrix factorizations and Kauffman homology,” joint with J. Walcher, www.arxiv.org/abs/hep-th/0512298

BO’AZ KLARTAG

“Fitting a Cm-Smoenkatesh,” with C. Fefferman, submitted, 24 pages.

“Uniform almost sub-gaussian estimates for linear functionals on convex sets.” Preprint. Available at www.math.ias.edu/~klartag/papers/psitwo.pdf

ELON LINDENSTRAUSS

“Invariant measures and arithmetic quantum unique ergodicity,” *Ann. of Math.* (2) 163 (2006), no. 1, 165–219.

“Symbolic representations of nonexpansive group automorphisms. *Probability in mathematics*,” with Klaus Schmidt, *Israel J. Math.* 149 (2005), 227–266.

CIPRIAN MANOLESCU

“Link homology theories from symplectic geometry,” www.arxiv.org/abs/math.SG/0601629

“Nilpotent slices, Hilbert schemes, and the Jones polynomial,” submitted to the *Duke Mathematical Journal*, Vol. 132 (2006), 311–369.

MARYAM MIRZAKHANI

“Weil-Petersson volumes and intersection theory on the moduli space of curves,” to appear in *J. Amer. Math. Soc.*

“Ergodic theory of the earthquake flow.” Preprint 2005.

DAVID SPEYER

“A matroid invariant via the K-theory of the Grassmannian,” www.arxiv.org/abs/math.AG/0603551

“Computing Tropical Varieties,” www.arxiv.org/abs/math.AG/0507563

ANDRÁS VASY

“Scattering theory on $SL(3)/SO(3)$: Connections with quantum 3-body scattering,” with R. Mazzeo, to appear in *Proc. London Math. Soc.*

“Geometric optics and the wave equation on manifolds with corners,” to appear in the *Contemporary Mathematics series of the AMS*, volume “Recent Advances in Differential Equations and Mathematical Physics.”

AKSHAY VENKATESH

“Local-global principles for representations of quadratic forms,” with Jordan Ellenberg, arxiv.org/math.NT/0604232

“Equidistribution, L-functions and ergodic theory: On some problems of Yu. V. Linnik,” with Philippe Michel, to appear in *ICM 2006 proceedings*.