

Selected Articles by Research Fellows

Below are listed the two most recent publications for each of CMI's Research Fellows (Long-Term Prize Fellows). The complete list is available at www.claymath.org/fellows. Especially noteworthy was the result of Green and Tao posted at [arXiv:math.NT/0404188](https://arxiv.org/abs/math.NT/0404188). The authors show that there are arbitrarily long arithmetic progressions of prime numbers.

DANIEL BISS

Decomposing $Out(F_n)$. D.K. Biss
 $CD + PL$ implies smooth. L.M. Anderson and D.K. Biss

ALEXEI BORODIN

Random partitions and the Gamma kernel. Alexei Borodin, Grigori Olshanski ([arXiv:math-ph/0305043](https://arxiv.org/abs/math-ph/0305043))
Continuous time Markov chains related to Plancherel measure (announcement of results). Alexei Borodin, Grigori Olshanski ([arXiv:math-ph/0402064](https://arxiv.org/abs/math-ph/0402064))

MARIA CHUDNOVSKY

Detecting even holes. M. Chudnovsky, K. Kawarabayashi, P. Seymour
Maria Chudnovsky is also finishing the publication *Non-zero A -paths in graphs with edges labeled by group elements* with J. Geelen, B. Gerards, L. Goddyn, M. Lohman and P. Seymour

DENNIS GAITSGORY

On de Jong's conjecture. Dennis Gaitsgory ([arXiv:math.AG/0402184](https://arxiv.org/abs/math.AG/0402184))
 D -modules on the affine Grassmannian and representations of affine Kac-Moody algebras. E. Frenkel, D. Gaitsgory ([arXiv:math.AG/0303173](https://arxiv.org/abs/math.AG/0303173))

SERGEI GUKOV

Equivalence of twistor prescriptions for super Yang-Mills. S. Gukov, L. Motl, A. Neitzke ([arXiv:hep-th/0404085](https://arxiv.org/abs/hep-th/0404085))
An Index for 2D field theories with large $N=4$ superconformal symmetry. Sergei Gukov, Emil Martinec, Gregory Moore, Andrew Strominger ([arXiv:hep-th/0404023](https://arxiv.org/abs/hep-th/0404023))

ELON LINDENSTRAUSS

Invariant sets and measures of nonexpansive group automorphisms. E. Lindenstrauss, K. Schmidt ([arXiv:math.DS/0303121](https://arxiv.org/abs/math.DS/0303121))
Rigidity of multiparameter actions. Elon Lindenstrauss ([arXiv:math.DS/0402165](https://arxiv.org/abs/math.DS/0402165))

MIRCEA MUSTATA

Multiplier ideals of hyperplane arrangements. Mircea Mustata ([arXiv:math.AG/0402232](https://arxiv.org/abs/math.AG/0402232))
Asymptotic invariants of base loci. Lawrence Ein, Robert Lazarsfeld, Mircea Mustata, Michael Nakamaye, Mihnea Popa ([arXiv:math.AG/0308116](https://arxiv.org/abs/math.AG/0308116))

IGOR RODNIANSKI

Global existence for the Einstein vacuum equations in wave coordinates. H. Lindblad, I. Rodnianski ([arXiv:math.AP/0312479](https://arxiv.org/abs/math.AP/0312479))
A geometric approach to the Littlewood-Paley theory. Sergiu Klainerman, Igor Rodnianski ([arXiv:math.AP/0309463](https://arxiv.org/abs/math.AP/0309463))

TERENCE TAO

The primes contain arbitrarily long arithmetic progressions. Ben Green and Terence Tao ([arXiv:math.NT/0404188](https://arxiv.org/abs/math.NT/0404188)).
Global well-posedness and scattering for the higher-dimensional energy-critical non-linear Schrödinger equation for radial data. Terence Tao ([arXiv:math.AP/0402130](https://arxiv.org/abs/math.AP/0402130))