

GLEB A. KOSHEVOY

research areas

Algebraic Combinatorics, Representation theory,
Polyhedral combinatorics and Discrete Convexity

education

2003 Doctor of Sciences in Mathematics and Physics (Habilitation),
The Highest Attestation Committee,
Ministry of Sciences and Education of Russia
1993 Candidate of Sciences in Mathematics and Physics,(Doctorate)
CEMI, R.A.S.
1990-1986 Graduate School in Mathematics, Moscow State University
1984-1979 Diploma in Mathematics, Moscow State University.

awards

2014-2015 Chair International, Labex -MME (Paris)
2005-06 Russian Academy of Sciences and SFRS stipend to outstanding scientists

qualification

2009 Professor des universités, Section 26, N 0912619341

languages

English(fluent), German(fluent), French(fair).

positions

2005-present Chief Researcher
Lab. of Mathematical Economics,Moscow, CEMI, RAS
2003-2005 Leading Researcher
Lab. of Mathematical Economics,Moscow, CEMI, RAS
1992-2003 Senior Researcher
Lab. of Mathematical Economics,Moscow, CEMI, RAS
1991-1992 Researcher
Lab. of Mathematical Economics,Moscow, CEMI, RAS
1984-1990 Junior Researcher,
All-Union Institute for Economic Research
in Science and Technical Development, Moscow

grants

2016-18 RSF 16-11- 10075 "Arithmetic, Algorithmic, and Tropical structures in Representation theory"
 2010-12 CNRS-RFBR grant "Combinatorial structures related to quantum groups"
 2006-09 CNRS-RFBR "Polyhedral combinatorics and representation theory"
 2005-08 NWO-RFBR grant "Discrete convexity and applications"
 2001-05 Finnish Academy of Sciences grant, "New methods in non-parametric statistics"
 1996-2000 Research Fellowship from the German Science Foundation (DFG)
 1995 N1V300 from the International Science Foundation and Russian Government
 1994 N1V000 from the International Science Foundation

Other Scholarly Activities

Editorial Activity

2013– Editor
 Annales de l'Institut Henri Poincaré Serie D
 Combinatorics, Physics and their Interactions

Expert Activity

2014– Member of Scientific Consul
 Russian Foundation for Basic Research

Professional Membership

2003– Researcher at Poncelet Center (IMU and CNRS UMI 2615)

Recent publications

1. Cluster decorated geometric crystals, generalized geometric RSK-correspondences, and Donaldson-Thomas transformations, in: *2017 MATRIX Annals, Editors: David R. Wood, Jan de Gier, Cheryl E. Praeger, Terence Tao*. MATRIX Book Series, Volume 2, Springer, in press
2. Cluster fan of z -vectors and toric degenerations, Séminaire Lotharingien de Combinatoire, 80B (2018) (Proceedings of FPSAC)
3. Monotone bargaining is Nash-solvable, *Discrete Applied Mathematics*, 2019 (with V.Gurvich), in press
4. Lift expectations of random sets, *Statistics and Probability Letters*, 2019 (with M.A.Diaye and I.Molchanov)
5. Combined tilings and separated set-systems, *Selecta Mathematica New Series*, 23/2(2017), 1175-1203, (with V. Danilov and A. Karzanov)
6. Cooperative games with restricted formation of coalitions, *Discrete Applied Mathematics*, 218 (2017), 1-13 (with T.Suzuki and D. Talman)

7. Subtraction-free complexity, cluster transformations, and spanning trees, *Foundations of Computational Mathematics*, 16/1 (2016), 1 - 31 (with S. Fomin and D. Grigoriev)
8. Complexity of tropical Schur polynomials, *Journal of Symbolic Computation*, 74 (2016), 46 -54 (with D. Grigoriev)
9. Supermodular NTU-games, *Oper. Res. Lett.*, 44/4 (2016), 446–450 (with T.Suzuki and D. Talman)
10. Hyper-relations, choice functions and orderings of opportunity sets, *Social Choice and Welfare* 45/1 (2015), 51 - 69 (with V.Danilov and E.Savaglio)
11. The purity of set-systems related to Grassmann necklaces, *Discrete Mathematics and Theoretical Computer Sciences*, proc. AT (2014), 193–204 (with V.Danilov and A. Karzanov)
12. Tropical Plücker functions and Kashiwara crystals, in Tropical and Idempotent Mathematics and Applications, (eds. Litvinov G.L., and Sergeev S.N.) *Contemporary Mathematics*, AMS, vol. 616 (2014), 77–93 (with V.Danilov and A. Karzanov)
13. Random Sets Lotteries and Decision Theory, *Journal of Mathematical Psychology*, 61 (2014), 14 -18 (with M.Diaye)
14. Solution concepts for games with general coalitional structure, *Mathematical Social Sciences*, 68 (2014), 19–30 (with D.Talman)
15. Assembling Crystals of Type A, *Algebra*, (2013), Article ID 483949, 14 pages (with V.Danilov and A.Karzanov)
16. Maximal Condorcet domains, *Order*, 30(2013), 181–194 (with V.Danilov)

Papers submitted for publication

1. Combinatorics of canonical bases revisited: Type A, arXiv:1611.03465 (with V.Genz and B.Schumann)
2. Polyhedral parametrizations of canonical bases & cluster duality, arXiv:1711.07176 (with V.Genz and B.Schumann)
3. On interrelations between strongly, weakly and chord separated set-systems (a geometric approach), arXiv:1805.09595 (with V.Danilov and A.Karzanov)
4. Cubillages on cyclic zonotopes, membranes, and higher separation, arXiv:1810.05517 (with V.Danilov and A.Karzanov)