CURRICULUM VITAE

Nikon Kurnosov

Contact information

Address:	University College London Department of Mathematics 25 Gordon Street London, UK
Email:	nikon.kurnosov@gmail.com
Webpage:	https://iris.ucl.ac.uk/iris/browse/profile?upi=NKURN10 (My web-page at UCL); http:/users.mccme.ru/nikon (My web-page on mccme.ru)

Personal information

Born: December 15, 1989, Moscow, USSR
Citizenship: Russia (Russian Federation)

Academic Positions

2020–present	Clifford Research Fellow, University College London
2017–2020	Postdoctoral Research and Teaching Associate, University of Georgia
2017–2022	Research fellow, Laboratory of Algebraic Geometry and its applications, Department of mathematics, National Research University Higher School of Economics
2014–2017	Student-researcher, Laboratory of Algebraic Geometry and its applications, National Research University Higher School of Economics
2012–2012	Student-assistant, Institut für Anorganische Chemie, Universität Bonn

Education

Higher School of Economics, Moscow, Russia
Ph.D. in Mathematics, 2017
Thesis: *Betti numbers and trianalytic subvarieties of hyperkähler manifolds*
Research mentor: Misha Verbitsky

Lomonosov Moscow State University, Moscow, Russia
Ph.D.in Chemistry,2016
Research mentor: Yurii Kiselev

Lomonosov Moscow State University, Moscow, Russia
M.S. in Chemistry, 2013
Research mentor: Vladimir Dolzhenko

Independent University of Moscow, Moscow, Russia
M.S. in Mathematics, 2012
Thesis: *Flat connections on nilmanifolds*
Research mentor: Misha Verbitsky

Lomonosov Moscow State University, Moscow, Russia
B.S. in Materials Sciences, 2011
Research mentor: Vladimir Dolzhenko

Research Interests

Algebraic geometry, complex geometry, hyperkähler geometry, Hodge theory, Calabi-Yau manifolds, automorphisms, symplectic varieties, Mirror symmetry

Papers

2017–2022

1. **Kurnosov N.**, Verbitsky M., *Deformations and BBF form on non-Kahler holomorphically symplectic manifolds*, arXiv:1908.05258v1 [math.AG], *Research in the Math.Sciences.* (submitted, 2022)
2. **Kurnosov N.**, Yasinsky E., *Automorphisms of hyperkahler manifolds and groups acting on CAT(0) spaces*, arXiv:1810.09730v1 [math.AG], Springer Proceedings: *Birational geometry, Kähler–Einstein metrics and degenerations, 2022*.
3. Bogomolov F., **Kurnosov N.**, Kuznetsova A., Yasinsky E. *Geometry and automorphisms of non-Kähler holomorphically symplectic manifolds*, *International Mathematics Research Notices*, 2022; DOI: rnab043.
4. Buonerba F., Bogomolov F., **Kurnosov N.**, *Classifying VII_0 surfaces with $b_2 = 0$ via arithmetic groups*, EJM (accepted)
5. **Kurnosov N.**, Soldatenkov A., Verbitsky M., *Kuga-Satake construction and cohomology of hyperkahler manifolds*, *Advances in Mathematics*, **351**, pp. 275–295, 2019.
6. **Kurnosov N.**, *Boundness of b_2 for hyperkähler manifolds with vanishing odd-Betti numbers, Math. Rev.*, **1**, 2020, pp. xx.
7. **Kurnosov N.**, *Constraints on Betti numbers of hyperkähler sixfolds with $b_2 = 23$*, Proceedings of MiniPAGES, Warsaw, 2020

before 2017

8. **Kurnosov N.**, *Absolutely trianalytic tori in the generalized Kummer variety*, *Advances in Mathematics*, **298**, **6**, pp. 473-483, 2016, arXiv:1504.08010v2 [math.AG].
9. **Kurnosov N.**, *An inequality for Betti numbers of hyper-Kähler manifolds of dimension 6, Mathematical Notes.*, **99**, 1, pp. 330-334, 2016.
10. **Kurnosov N.**, *Subvarieties and cohomology of hyperkähler manifolds*, PhD Thesis, Steklov Institute, in Russian.
11. **Kurnosov N.**, *Synthesis of thienylpyrazoles*, *HGS*, **16**, pp. 14-21, 2015.
12. Dolzhenko V., Kiselev Yu., **Kurnosov N.**, *Synthesis and Structure of New Copper(II) Nitrate Complexes with 2,6-Bis(pyrazolyl)pyridine*, *Z. Anorg. Allg. Chem.*, **2014**, 640, (2), 347-351.
13. Bezzubov S., Dolzhenko V., **Kurnosov N.**, Zharinova I., Kovalenko I., Kiselev Yu., *(2-Benzoyl-1-phenylethenolato-k2O, O') bis [2-(1-phenyl-1H-benzimidazol -2-yl) phenyl-kC1] iridium (III) dichloromethane disolvate*, IUCrData, **2016**.

Preprints and submitted papers

1. **Kurnosov N.**, *Verbitsky component and Rozansky-Witten invariants in dimension six*, users.mccme.ru/nikon/rw-llv.pdf
2. **Kurnosov N.**, Verbitsky M., *Deformations of Lagrangian fibrations of holomorphically symplectic manifolds,* in preparation.
3. Bogomolov F., **Kurnosov N.**, *Lagrangian fibrations of IHS fourfolds*, arXiv:1810.11011v1 [math.AG], submitted to EJM.

Other Publications

LXXV Moscow Mathematical Olympiad (as one of authors), M.: MCCME, 2012, 72 pp.
LXXVI Moscow Mathematical Olympiad (as one of authors), M.: MCCME, 2013, 78 pp.
LXXIX Moscow Mathematical Olympiad (as one of authors), M.: MCCME, 2016, 65 pp.
LXXXIV Moscow Mathematical Olympiad (as one of authors), M.: MCCME, 2021, 82 pp.
Problems of Moscow Chemical Tournaments (as one of authors), M.: MCCME, 2015, 44 pp.
Problems of Moscow Chemical Tournaments (as one of authors), M.: MCCME, 2016, 48 pp.

Teaching Experience

2020–2022 **Clifford Research Fellow, UCL**
- Riemannian Geometry (MATH0072)
- Hyperkähler geometry (LTCC course)
- Hodge Theory (LTCC course)

2017–2020 **Postdoctoral Research Fellow and Teaching Assistant, UGA**
- Calculus I (Math 2250)
- Calculus III (Math 2500)

2013–2016 **Teaching Assistant, HSE**
- Reading course on Torelli theorem
- Modular forms (BS & MS course)
- Lie groups and algebras (BS & MS course)
- Kähler geometry (Math in Moscow course)
- Calculus I (BS course)
- Algebra I (BS course)
- Algebra II (BS course)

2011–2016 **Teaching Assistant & Instructor, IUM**
- Measure Theory
- Algebra I
- Algebra II
- Algebra III
- Calculus I

2021 Stein manifolds

Lecture series and Expository Talks

2013 "Groups in Physics and Chemistry", Summer School "Contemporary Mathematics"

2014 "Pelle's equation & Dirichlet unit Theorem", Summer School "Contemporary Mathematics"

2016 "Cubic forms", Summer School "Contemporary Mathematics"

2018 "Counting points on curves", Summer School "Contemporary Mathematics"

2018 Symmetry groups in nature (Math Club, UGA)

2018 Integer points & Volumes of polyhedra (Math Club, UGA)

2019 Fractals (Math Club, UGA)

2021 "On Gauss' proof of the Main Theorem of Algebra", Summer School "Contemporary Mathematics"

2022 Lectures in geometry for Ukranian scholars

Academic Services

Professional Service

2022 Research mentor of MSci work, UCL

2020 Research mentor of 1st year project, LSGNT

2017–2019 Jury Member UGA Math Tournament

2017 Research mentor of Term work, HSE

2015–2016 Vice-chair of "High Probe" Olympiad, HSE

2013–2017 Jury Member of Moscow Mathematical Olympiad

2011–2017 Jury Member of Chemical Tournament

2012–2017 Jury Member of Tournament of Towns

2012–2016 Jury Member of Russian Geometry Olympiad

2015–present Referee for: EJM – Adv. Math. – Compl.Geometry– Exp.Mathematics – Izvestiya Math – Tetrahedron – Zentrablath math.

Conferences Organized

2023	Workshop on birational geometry and foliations, King's College London
2022	Workshop on complex geometry in honor of Fedor Bogomolov 75th birthday, UCL
2022	Co-organizer, Summer School "Algebra and Geometry" in Suzdal'
2016-2021	Lutsinofest
2017-2021	Co-organizer, Summer School "Algebra and Geometry" in Yaroslavl'
2019	Workshop " Hyperkähler Saturday", Moscow
2017	Hyperkähler Saturday, HSE
2017	Co-organizer, Summer School on Fontanka: Geometry
2017	Co-organizer, Spring school-conference Birational geometry in positive characteristic, HSE
2016	Co-organizer, School-Conference Groups of birational automorphisms, HSE
2016	Co-organizer, School "Introduction to birational geometry", HSE
2016	Co-organizer, Spring School-Conference Surfaces in positive characteristic, HSE
2015	Co-organizer, Workshop on Projective Algebraic Geometry (celebrating Fyodor Zak's 65th birthday), Moscow, Russia

Seminars Organized

2022-present	Co-organizer of UCL Geometry seminar
2020-2021	Co-organizer of Zoomerfest
2017-2020	Co-organizer of Algebraic Geometry seminar, UGA
2013-2017	Co-organizer of Complex structures on manifolds seminar, HSE
2015-2017	Co-organizer of Seminar of Laboratory of algebraic geometry, HSE

Languages

Russian, English, Deutsch (beginner)

Computer Skills

Expert with LaTeX, HTML, programming in C, Pascal, Python and PARI/GP, graphic design in PS

Hobbies

Football, Art & Music (Dj-ing), Numismatics.

References

Misha Verbitsky (*doctoral advisor*), IMPA, verbit2000@gmail.com
Dmitry Kaledin, Steklov Institute, kaledin@mi.ras.ru
Fedor Bogomolov, Courant Institute, bogomolo@cims.nyu.edu
Maurice Hendon (*teaching reference*), University of Georgia, mhendon@uga.edu
Ben Bakker, University of Chicago, ben.bakker@gmail.com
Giovanni Mongardi, University of Bologna, giovanni.mongardi@gmail.com
Alessio Corti, Imperial College London, a.corti@imperial.ac.uk
Valery Alexeev, University of Georgia, valery@uga.edu
Yiannis Petridis (*teaching reference*), University College London , i.petridis@ucl.ac.uk