IVAN CHELTSOV

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- University Education:
 - Johns Hopkins University, Baltimore (USA), 1996–2000,
 - Steklov Institute, Moscow (Russia), 1995–1999,
 - Moscow State University, Moscow (Russia), 1990–1995.
- Degrees awarded:
 - Doctor of Science, Steklov Institute, Moscow (Russia), 2006,
 - Ph.D. in Mathematics, Johns Hopkins University, Baltimore (USA), 2000,
 - Ph.D. in Mathematics, Steklov Institute, Moscow (Russia), 1999,
 - B.Sc. in Mathematics, Moscow State University, Moscow (Russia), 1995.
- Career since graduation:
 - Professor, University of Edinburgh, 2012–present,
 - Reader (Associate Professor), University of Edinburgh, 2008–2012,
 - Lecturer (Assistant Professor), University of Edinburgh, 2004–2008,
 - Postdoctoral Associate, University of Georgia, 2002–2004,
 - Software Engineer, Parametric Technology Corporation, 2001–2002,
 - Lecturer (Assistant Professor), University of Liverpool, 2000–2001.
- Research grants:
 - EPSRC Grant EP/V054597/1, £78027, 2022-2024,
 - Leverhulme Trust grant RPG-2021-229, £145438, 2021-2025,
 - Royal Society Grant IE180205, £10780, 2018–2020,
 - Royal Society Grant IE111456, £9182, 2012-2014,
 - EPSRC Grant EP/E048412/1, £186379, 2007–2009.
- Postgraduate students supervision:
 - (1) Dimitra Kosta (2005–2009), Royal Society Research Fellow (Edinburgh),
 - (2) Andrew Wilson (2006–2010), Lecturer at the University of Glasgow,
 - (3) Ilya Karzhemanov (2007–2010), Associate Professor at MIPT (Moscow),
 - (4) Dmitrijs Sakovics (2009–2013), Software Developer at Valtech (Bristol),
 - (5) Jesus Martinez Garcia (2010–2013), Senior Lecturer at the University of Essex,
 - (6) Igor Krylov (2013–2016), Senior Research Fellow in IBS (Pohang),
 - (7) Nivedita Viswanathan (2017–2021), Research Assistant at the University of Nottingham,

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- (8) Arman Sarikyan (2020–present),
- (9) Antoine Pinardin (2021–present),
- (10) Elena Denisova (2021–present),
- (11) Joseph Malbon (2022–present).

- Membership of societies:
 - Edinburgh Mathematical Society (2008-present),
 - London Mathematical Society (2010–present).
- Conference and workshop talks over the last 5 years:
 - K-stability and space curves of degree 6 and genus 3,
 - K-stability of Fano varieties and Birational invariants, Trento (Italy), 2023,
 - Birational involutions of the real projective plane that do not fix irrational curves,
 - Real Algebraic Geometry and Singularities, Krakow (Poland), 2022,
 - Birational involutions of the real projective plane,
 - IBS Center for Geometry and Physics 10th Anniversary Conference, Pohang (Korea), 2022, *K-moduli of one-parameter families of smooth Fano threefolds*,
 - Higher Dimensional Algebraic Geometry, Johns Hopkins University, Baltimore (USA), 2022, - Equivariant birational geometry of three-dimensional projective space,
 - Hodge Theory and Related Topics, University of Miami, Miami (USA), 2022,
 - K-stability of three-dimensional smooth Fano varieties, Algebra and Geometry, Yaroslavl (Russia), 2021,
 - K-stability of Fano varieties,
 K-stability and Related Topics, American Institute of Mathematics, San Jose (USA), 2020,
 - Toric G-Solid Fano threefolds
 Birational Geometry, Kähler–Einstein Metrics and Degenerations, Pohang (Korea), 2019,
 - Local (intersection) inequalities,
 Kinosaki Algebraic Geometry Symposium, Kinosaki (Japan), 2019,
 - K-stability of asymptotically log del Pezzo surfaces, AGNES workshop, Boston College, Boston (USA), 2019,
 - G-birationally super-rigid Fano varieties with small α-invariants,
 Algebraic Geometry International Conference, KIAS, Seoul (Korea), 2019,
 - K-stability of asymptotically log del Pezzo surfaces,
 - Tropical Geometry in Europe, Fiesch (Switzerland), 2019,
 - Borisov-Alexeev-Borisov conjecture and its applications,
 Twenty-Sixth Gökova Geometry & Topology Conference, Gökova (Turkey), 2019,
 - Rational and non-rational threefolds,
 Rationality of Algebraic Varieties, Schiermonnikoog Island, 2019,
 - How to compute δ-invariants of del Pezzo surfaces?,
 Korean–Russian Algebraic Geometry Meeting, Moscow (Russia), 2019,
 - On a question of Charlie Stibitz and Ziquan Zhuang,
 - Explicit Birational and Affine Geometry, Saitama (Japan), 2018,
 - Smooth Fano threefolds of degree 22 with infinite automorphism groups, Birational Geometry and Related Topics, SCMS, Shanghai (China), 2018
 - On a question of Charlie Stibitz and Ziquan Zhuang,
 Fano varieties and their automorphisms, Loughborough (England), 2018,
 - How to compute δ -invariant of Fano varieties?, Algebraic Surfaces and Related Topics, Xiamen (China), 2018,
 - On a question of Charlie Stibitz and Ziquan Zhuang,
 Differential, Algebraic and Topological Methods in Algebraic Geometry, Cetraro (Italy), 2018,
 - Finite collineation groups and birational geometry,
 Computational Mathematics and Algebraic Geometry, Linz (Austria), 2018,

- Finite collineation groups and birational geometry,
- Birational Geometry and Arithmetic, ICERM, Providence (USA), 2018,
- Finite collineation groups and birational geometry,
- LMS Workshop: Celebrating Algebraic Geometry, Loughborough (England), 2018,
- Super-rigid Affine Fano varieties,
- 16th Affine Algebraic Geometry conference, Osaka (Japan), 2018,
- Finite collineation groups and birationally rigidity,
 - The Shokurovs: Workshop for Birationalists, IBS, Pohang (Korea), 2018.
- Seminar and colloquium talks over the last 5 years:
 - On K-stability of smooth Fano threefolds,
 - Complex Geometry Seminar, University of Toulouse, Toulouse (France), 2022,
 - On K-stability of smooth Fano threefolds of Picard rank 3 and degree 18,
 - Geometry Seminar, Ecole Polytechnique, Palaiseau (France), 2022,
 - Equivariant birational geometry of three-dimensional projective space,
 Algebraic Geometry Seminar, University of Trento, Trento (Italy), 2022,
 - Equivariant birational geometry of three-dimensional projective space,
 - Algebraic Geometry Seminar, University of Cyprus, Nicosia (Cyprus), 2022,
 - K-stable Fano threefolds of Picard rank 2 and degree 30,
 Algebraic Geometry Seminar, Higher School of Economics, Moscow (Russia), 2021,
 - Kähler-Einstein smooth Fano threefolds of Picard rank 2 and degree 30, Geometry and Mathematical Physics Seminar, University of Loughborough (England), 2021,
 - K-moduli of one-parameter families of smooth Fano threefolds,
 - Cambridge–Oxford–Warwick Seminar, University of Bath (England), 2021,
 - Kähler-Einstein smooth Fano threefolds,
 Birational Geometry Seminar (online), National Taiwan University (Taipei), 2021,
 - Kähler–Einstein smooth Fano threefolds,
 - Greek Mathematical Seminar (online), Greece, 2021,
 - Kähler-Einstein smooth Fano threefolds,
 - Algebraic Geometry Seminar (online), IBS (Pohang, Korea), 2021,
 - Calabi problem for smooth Fano threefolds,
 - Algebraic Geometry Seminar (online), (Tokyo/Kyoto, Japan), 2021,
 - Calabi problem for smooth Fano threefolds,
 - Oberseminar (online), MPIM (Bonn, Germany), 2021,
 - K-stability for Fano threefolds,
 - Oberseminar (online), Institute for Algebraic Geometry, Hannover (Germany), 2020, - K-stability for Fano threefolds,
 - M-Seminar (online), Kansas State University, Manhattan (Kansas, USA), 2020,
 - K-stability of smooth Fano threefolds,
 - Algebra and Number Theory Seminar, University of Glasgow (Scotland), 2020,
 - Calabi problem for smooth Fano threefolds,
 - Algebraic Geometry Seminar, Higher School of Economics, Moscow (Russia), 2020, *Toric G-solid Fano threefolds*,
 - Algebraic Geometry Seminar, University of Warwick (England), 2019,
 - K-stability of asymptotically log del Pezzo surfaces, Quantum Geometry of Moduli Spaces Seminar, Aarhus University (Denmark), 2019,

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- Caucher Birkar and the famous BAB conjecture,
- Fields Medal Celebration Event, University of Nottingham (England), 2019,
- Borisov-Alexeev-Borisov conjecture and its applications,
 Algebraic Geometry Seminar, Higher School of Economics (Russia), 2019,
- Borisov-Alexeev-Borisov conjecture and its applications,
- Colloquium, University of Lille (France), 2019,
- Katzarkov-Kontsevich-Pantev conjecture for Fano threefolds, Algebraic Geometry Seminar, Higher School of Economics (Russia), 2018,
- Kähler-Einstein Fano threefolds of degree 22,
- Geometry Seminar, Imperial College, London (England), 2018,
- Burkhardt, Todd, Igusa, Coble, Beauville and rational quartic threefolds, Geometry Seminar, University of Rome III (Italy), 2018,
- Kähler-Einstein Fano threefolds of degree 22,
- Quantum Geometry of Moduli Spaces Seminar, Aarhus University (Denmark), 2018.
- Lectures given as guest lecturer over the last five years:
 - Finite subgroups of Cremona groups (five lectures), Auckland (New Zealand), December 9th-13th, 2019,
 - Equivariant birational geometry of threefolds (three lectures),
- Yaroslavl (Russia), July 25th–26th, 2018. • Research visits over the last five years:
 - University of Auckland (New Zealand), 3 weeks, 2022,
 - American Institute of Mathematics, San Jose (USA), 1 week, 2022
 - Institut des Hautes Etudes Scientifiques, Bures-sur-Yvette (France), 2 months, 2022,
 - University of Saitama (Japan), 4 weeks, 2022
 - Nemuro, Hokkaido (Japan), 1 week 2022,
 - London Mathematical Society, London (England), 1 week 2022,
 - University of Cyprus, Nicosia (Cyprus), 1 week 2022,
 - Max Planck Institute for Mathematics, Bonn (Germany), 6 months, 2021,
 - Nemuro, Hokkaido (Japan), 1 week 2018,
 - Erwin Schrödinger Institute, Vienna (Austria), 1 month, 2018,
 - Oberwolfach Research Institute, Oberwolfach (Germany), 2 weeks, 2018.
- Conference and workshop organizer over the last five years:
 - Birational geometry and K-stability of Fano varieties,
 21st-25th November 2022, University of Edinburgh (Scotland),
 co-organizers: C. Araujo, F. Catanese, A.-S. Kaloghiros,
 - Conference on MMP and moduli,
 24th October–28th October 2022, Simons Foundation, New York (USA),
 co-organizers: P. Cascini, J. McKernan, C. Xu,
 - Conference on stability and moduli,
 22nd August-26th August 2022, Simons Center, Stony Brook (USA),
 co-organizers: P. Cascini, J. McKernan, C. Xu,
 - Conference on higher dimensional geometry,
 23rd February–25th February 2022, Simons Foundation, New York (USA),
 co-organizers: P. Cascini, J. McKernan, C. Xu,
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- Fedor Bogomolov's 75th birthday,
 14th–16th January 2022, University College London, London (England),
 co-organizers: P. Cascini, N. Kurnosov,
- Geometry and Homological Mirror Symmetry, 11th-14th December 2021, Sirius Mathematics Center (Sochi, Russia), co-organizers: L. Katzarkov, V. Przyjalkowski,
- Explicit K-stability and moduli problems,
 29th November–3rd December 2021, University of Edinburgh (Scotland),
 co-organizers: J. Martinez Garcia, A.-S. Kaloghiros,
- Primorie Mathematical Fair,
 21st-26th July 2021, Far Eastern Federal University (Vladivostok, Russia),
 co-organizers: N. Anisimov, O. Artamonov, L. Katzarkov, E. Kharisova,
 A. Molochkov, A. Ognev, V. Przyjalkowski,
- Explicit K-stability and moduli problems,
 7th–11h December 2020 (online), University of Edinburgh (Scotland),
 co-organizers: J. Martinez Garcia, A.-S. Kaloghiros,
- Conference on rationality,
 27th Monday–31st July 2020 (online), Simons Foundation, New York (USA),
 co-organizers: P. Cascini, J. McKernan, C. Xu,
- Conference on K-stability,
 28th September–2nd October 2020 (online), Simons Center, Stony Brook (USA),
 co-organizers: P. Cascini, J. McKernan, C. Xu,
- Algebraic Geometry in Auckland,
 16th–20th December 2019, University of Auckland (New Zealand),
 co-organizers: S. Maù, F. Mangolte,
- Fano varieties, cone singularities and their links,
 5th–8th November 2019, University of Edinburgh (Scotland),
 co-organizer: H. Süß,
- Birational Geometry, Kähler-Einstein metrics and degenerations, 8th-13th April (Moscow), 10th-14th June (Shanghai), 18th-22nd November 2019 (Pohang), HSE (Russia), ShanghaiTech University (China), IBS Center for Geometry and Physics (Korea), co-organizers: X.X. Chen, L. Katzarkov, J. Park,
- Kodaira workshop,
 15th–16th March 2019, University of Loughborough (England),
 co-organizer: H. Abban,
- Intra-disciplinary workshop: Geometry at Large, 10th–18th December 2018, Fuertoventura (Spain), co–organizer: I. Fesenko,
- Constructions and Obstructions in Birational Geometry,
 5th–9th November 2018, University of Edinburgh (Scotland),
 co-organizers: L. Heuberger, E. Shinder,
- Subgroups of Cremona Groups,
 17th June–23 June 2018, Oberwolfach Research Institute (Germany),
 co-organizers: J. Deserti, F. Catanese, Yu. Prokhorov.
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- Editorial experience:
 - subject editor for
 - (1) Algebraic Geometry and Physics, 2022-present,
 - (2) Annali dell Universita di Ferrara, 2022–present,
 - (3) Journal of the Korean Mathematical Society, 2021-present,
 - (4) European Journal of Mathematics, 2019–present,
 - (5) Proceedings of Edinburgh Mathematical Society, 2007–2017,

- proceedings editor for

- (1) Automorphisms in Birational and Affine Geometry, Springer, 2012.
- (2) Shokurov volume, European Journal of Mathematics, 2014,
- (3) Spitsbergen volume, European Journal of Mathematics, 2016,
- (4) Magadan volume, Bulletin of the Korean Mathematical Society, 2017,
- (5) Edge volumes I and II, European Journal of Mathematics, 2018,
- (6) Easter Island volume, European Journal of Mathematics, 2019,
- (7) Fuerteventura Island volume, EMS Surveys in Mathematical Sciences, 2021,
- (8) New Zealand volume, European Journal of Mathematics, 2022,
- (9) Birational Geometry, Kähler–Einstein Metrics and Degenerations, Springer, 2023.
- Appointments as external examiner:
 - Pure Mathematics, University of Liverpool (2019–present),
 - viva examiner for
 - Pascal Fong (advisor: Jeremy Blanc), University of Basel, Basel (Switzerland), 2022,
 - (2) Kobina Jamieson (advisor: Alexander Pukhlikov), University of Liverpool, Liverpool (England), 2017,
 - (3) Sokratis Zikas (advisor: Jeremy Blanc), University of Basel, Basel (Switzerland), 2022,
 - (4) Laura Mallinson (advisor: Hamid Abban),
 - University of Loughborough, Loughborough (England), 2022
 - (5) Salvatore Tambasco (advisors: Alessandro Ghigi and Cristiano Spotti), University of Pavia, Pavia (Italy), 2020,
 - (6) Kristina Kubiliute (advisor: Konstanze Rietsch), Kings College London, London (England), 2020,
 - (7) Dominic Foord (advisor: Alexander Pukhlikov), University of Liverpool, Liverpool (England), 2020,
 - (8) Jacob Cable (advisor: Hendrick Süeß), University of Manchester, Manchester (England), 2020.
 - (9) Rosemary Taylor (advisor: Gavin Brown), University of Warwick, Coventry (England), 2019,
 - (10) Arthur Tomberg (advisor: Misha Verbitsky),Higher School of Economics, Moscow (Russia), 2019
 - (11) William Montoya (advisor: Ugo Bruzzo), SISSA, Trieste (Italy), 2019
 - (12) Fabio Bernasconi (advisor: Paolo Cascini), Imperial College, London (England), 2019,
 - (13) Christian Urech (advisors: Jeremy Blanc and Serge Cantat), University of Basel, Basel (Switzerland), 2017,

- (14) Ewan Johnstone (advisor: Alexander Pukhlikov), University of Liverpool, Liverpool (England), 2017,
- (15) Diletta Martinelli (advisor: Paolo Cascini), Imperial College, London (England), 2016,
- (16) Liana Heuberger (advisor: Andreas Höring), University of Paris 6, Paris (France), 2016,
- (17) Michael Selig (advisor: Miles Reid), University of Warwick, Coventry (England), 2015,
- (18) Kalyan Banerjee (advisor: Vladimir Guletskii), University of Liverpool, Liverpool (England), 2014,
- (19) Christopher Inbody (advisor: Charles Boyer), University of New Mexico, Albuquerque (USA), 2013,
- (20) Cristiano Spotti (advisor: Sir Simon Donaldson), Imperial College, London (England), 2012.

B. LIST OF PUBLICATIONS

- Books published:
 - The Calabi problem for Fano threefolds, co-authors: C. Araujo, A.-M. Castravet, K. Fujita, A.-S. Kaloghiros, J. Martinez-Garcia, C. Shramov, H. Süß, N. Viswanathan, Cambridge University Press (2023), LMS lecture series, 450 pages,
 - Birationally rigid Fano threefold hypersurfaces, co-author: J. Park,
 - Memoirs of the American Mathematical Society (2017), 117 pages,
 - Cremona groups and the icosahedron, co-author: C. Shramov,
 - Chapman and Hall/CRC (2015), 527 pages.
- Papers under consideration for publication:
 - On K-moduli of quartic threefolds, co-authors: H. Abban, A. Kasprzyk, A. Petracci,
 - Degree of irrationality of Fano threefold hypersurfaces, co-author: J. Park,
 - K-stable smooth Fano threefolds of Picard rank two, co-authors: E. Denisova, K. Fujita,
 - Birational involutions of the real projective plane,
 - co-authors: I. Cheltsov, F. Mangolte, E. Yasinsky, S. Zimmermann,
 - Equivariant pliability of the projective space, co-author: A. Sarikyan,
 - Double Veronese cones with 28 nodes, co-authors: H. Abban, J. Park, C. Shramov,
 - Katzarkov-Kontsevich-Pantev conjecture for Fano threefolds, co-author: V. Przyjalkowski,
- Papers accepted for publications:
 - K-stable divisors in $\mathbb{P}^1 \times \mathbb{P}^1 \times \mathbb{P}^1$ of degree (1, 1, 2), co-authors: K. Fujita, T. Kishimoto, T. Okada, to appear in Nagoya Mathematical Journal,
 - Toric G-solid Fano threefolds, co-authors: A. Dubouloz, T. Kishimoto, to appear in Selecta Mathematica,
 - Finite quasisimple groups acting on rationally connected threefolds,
 co-authors: J. Blanc, A. Duncan, Y. Prokhorov,
 to appear in Mathematical Proceedings of the Cambridge Philosophical Society,
 - K-polystability of two smooth Fano threefolds, co-author: H. Süß,
 - to appear in Springer Proceedings in Mathematics & Statistics,
 - Kähler-Einstein Fano threefolds of degree 22, co-author: C. Shramov, to appear in Journal of Algebraic Geometry,

- Kummer quartic double solids,

to appear in Rendiconti del Circolo Matematico di Palermo.

- Papers published in 2022:
 - Fibers over infinity of Landau-Ginzburg models, co-author: V. Przyjalkowski, Communications in Number Theory and Physics 16 (2022), 673–693,
 - K-stable Fano threefolds of rank 2 and degree 30, co-author: J. Park, European Journal of Mathematics 8 (2022), 834–852,
 - Birational self-maps of threefolds of (un)-bounded genus or gonality, co-authors: J. Blanc, A. Duncan, Y. Prokhorov,
 - American Journal of Mathematics 144 (2022), 575–597.
- Papers published in 2021:
 - On geometry of Fano threefold hypersurfaces, co-authors: H. Abban, J. Park, Rationality of Varieties, Birkhäuser Basel **342** (2021), 1–14,
 - Cylinders in Fano varieties, co-authors: J. Park, Y. Prokhorov, M. Zaidenberg, EMS Surveys in Mathematical Sciences 8 (2021), 39–105,
 - Del pezzo surfaces with infinite automorphism groups, co-author: Y. Prokhorov, Algebraic Geometry 8 (2021), 319–357,
 - Cylinders in rational surfaces, Sbornik: Mathematics 212 (2021), 399-415,
 - Delta invariants of singular del Pezzo surfaces, co-authors: J. Park, C. Shramov, Journal of Geometric Analysis **31** (2021), 2354–2382.
- Papers published in 2020:
 - Coble fourfold, S₆-invariant quartic threefolds, and Wiman-Edge sextics, co-authors: A. Kuznetsov and C. Shramov,
 - Algebra and Number Theory 14 (2020), 213–274,
 - Stable polarized del Pezzo surfaces, co-author: J. Martinez-Garcia, International Mathematics Research Notices 2020 (2020), 5477–5505.
- Papers published in 2019:
 - Finite collineation groups and birational rigidity, co-author: C. Shramov, Selecta Mathematica 25 (2019), paper 71, 68 pages,
 - Burkhardt quartic, Barth sextic, and the icosahedron,
 co-authors: V. Przyjalkowski and C. Shramov,
 International Mathematics Research Notices 2019 (2019), 3683–3703,
 - Delta invariants of smooth cubic surfaces, co-author: K. Zhang, European Journal Of Mathematics 5 (2019), 729–762,
 - Fano threefolds with infinite automorphism groups, co-authors: V. Przyjalkowski and C. Shramov Izvestia: Mathematics 83 (2019), 860–907,
 - Basis log canonical thresholds, local intersection estimates, and asymptotically log del Pezzo surfaces, co-authors: Y. Rubinstein and K. Zhang, Selecta Mathematica 25 (2019), 25–34,
 - Which quartic double solids are rational?, co-authors: V. Przyjalkowski and C. Shramov, Journal of Algebraic Geometry 28 (2019), 201–243,
 - Unstable polarized del Pezzo surfaces, co-author: J. Martinez-Garcia, Transactions of AMS 372 (2019), 7255–7296.
 - 8

- Papers published in 2018:
 - Super-rigid affine Fano varieties, co-authors: A. Dubouloz and J. Park, Compositio Mathematica 154 (2018), 2462–2484,
 - Alpha-invariants and purely log terminal blow-ups, co-authors: J. Park and C. Shramov, European Journal of Mathematics 4 (2018), 845–858,
 - On flops and canonical metrics, co-author: Y. Rubinstein,
 Annali Della Scuola Normale Superiore di Pisa 17 (2018), 283–311,
 - On a conjecture of Tian, co-authors: H. Abban and J. Schicho, Mathematische Zeitschrift 288 (2018), 217–241.
 - Mathematische Zeitschrift **288** (2018), 1
- Papers published in 2017:
 - Worst singularities of plane curves of given degree, Journal of Geometric Analysis 27 (2017), 2302–2338,
 - Cylinders in del Pezzo surfaces, co-authors: J. Park and J. Won,
 - International Mathematics Research Notices **2017** (2017), 1179–1230.
- Papers published in 2016:
 - Affine cones over smooth cubic surfaces, co-authors: J. Park and J. Won, Journal of the European Mathematical Society 18 (2016), 1537–1564,
 - Dynamic alpha-invariants of del Pezzo surfaces, co-author: J. Martinez-Garcia, International Mathematics Research Notices 10 (2016), 2994–3028,
 - *Quartic double solids with icosahedral symmetry*, co-authors: V. Przyjalkowski and C. Shramov, European Journal of Mathematics 2 (2016), 96–119,
 - Cylinders in singular del Pezzo surfaces, co-authors: J. Park and J. Won,
 - Compositio Mathematica **152** (2016), 1198–1224,
 - Two rational nodal quartic threefolds, co-author: C. Shramov, Quarterly Journal of Mathematics 67 (2016), 573–601.
- Papers published in 2015:
 - Asymptotically log Fano varieties, co-author: Y. Rubinstein,
 - Advances in Mathematics **285** (2015), 1241–13002.
- Papers published in 2014:
 - Computing alpha-invariants of singular del Pezzo surfaces, co-author: D. Kosta, Journal of Geometric Analysis 24 (2014), 798–842,
 - Five embeddings of one simple group, co-author: C. Shramov Transactions of AMS 366 (2014), 1289–1331,
 - Weakly-exceptional singularities in higher dimensions, co-author: C. Shramov, Journal fur die Reine und Angewandte Mathematik 689 (2014), 201–241,
 - Del Pezzo surfaces and local inequalities,
 - Springer Proceedings in Mathematics & Statistics 79 (2014), 83–101.
 - Log canonical thresholds of certain Fano hypersurfaces, co-authors: J. Park and J. Won, Mathematische Zeitschrift 276 (2014), 51–79.
- Selected old papers:
 - Del Pezzo zoo, co-author: C. Shramov,
 - Experimental Mathematics **22** (2013), 313–326,
 - Three embeddings of the Klein simple group into the Cremona group of rank three, co-author: C. Shramov, Transformation Groups 17 (2012), 303–350.
 - Six-dimensional exceptional quotient singularities, co-author: C. Shramov, Mathematical Research Letters 18 (2011), 1121–1139,

- On exceptional quotient singularities, co-author: C. Shramov, Geometry and Topology 15 (2011), 1843–1882.
- Exceptional del Pezzo hypersurfaces, co-authors: J. Park and C. Shramov, Journal of Geometric Analysis 20 (2010), 787–816,
- Factorial threefold hypersurfaces,
- Journal of Algebraic Geometry, 2010 19 781–791,
- Halphen pencils on quartic threefolds, co-author: I. Karzhemanov, Advances in Mathematics 223 (2010), 594–618.
- Points in projective spaces and applications, Journal of Differential Geometry 81 (2009), 575–599,
- On singular cubic surfaces,
 Asian Journal of Mathematics 19 (2009), 191–214,
- Log canonical thresholds of del Pezzo surfaces,
- Geometric and Functional Analysis **11** (2008), 1118–1144,
- Log canonical thresholds of smooth Fano threefolds, co-author: C. Shramov, Russian Mathematical Surveys 63 (2008), 71–178,
- Nonrational del Pezzo fibrations,
 Advances in Geometry 8 (2008), 441–450,
- Fano varieties with many selfmaps, Advances in Mathematics **217** (2008), 97–124.
- Two remarks on sextic double solids, co-author: J. Park, Journal of Number Theory 122 (2007), 1–12,
- Weighted Fano threefold hypersurfaces, co-author: J. Park, Journal fur die Reine und Angewandte Mathematik 600 (2006), 81–116,
- Double cubics and double quartics , Mathematische Zeitschrift 253 (2006), 75–86,
- Non-rational nodal quartic threefolds,
 Pacific Journal of Mathematics **226** (2006), 65–82.
- Hyperelliptic and trigonal Fano threefolds, co-authors: V. Przyjalkowski and C. Shramov, Izvestia: Mathematics, 2005 69 365–421,
- On factoriality of nodal threefolds, Journal of Algebraic Geometry, 2005 14 663–690,
- Log canonical thresholds on hypersurfaces, Sbornik: Mathematics 192 (2001), 1241–1257,
- On smooth quintic 4-fold,
 Sbornik: Mathematics **191** (2000), 1399–1419.