

ERIK PAEMURRU

Department of Mathematics and Computer Science,
University of Basel,
Spiegelgasse 1, CH-4051 Basel, Switzerland

Research interests: birational geometry, singularity theory, computer algebra

Work	University of Basel Postdoc, mentor Prof J�r�my Blanc	Oct 2020 – Sept 2021
	Imperial College London London Mathematical Society Early Career Fellow, mentor Prof Paolo Cascini	June 2020 – Sept 2020
	GlasStress Ltd. Software Engineer	Aug 2015 – May 2016

Education	Loughborough University PhD in Algebraic Geometry, supervisor Dr Hamid Ahmadinezhad, thesis title “Birational models of terminal sextic double solids”	Oct 2016 – Sept 2020
	Edinburgh University BSc Mathematics & Physics, First Class Honours	Sept 2010 – July 2014

Publications	<ol style="list-style-type: none"><i>Birational geometry of sextic double solids with a compound A_n singularity</i>, arXiv preprint (2021), arXiv:2101.00501<i>Del Pezzo Surfaces in Weighted Projective Spaces</i>, Proceedings of the Edinburgh Mathematical Society, 61(2) (2018)	
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Prizes	London Mathematical Society Early Career Fellowship Imperial College London	2020
	Engineering and Physical Sciences Research Council (EPSRC) PhD research full studentship, £14,000 per year + tuition fees covered Loughborough University	2016–2020
	II Prize, National Student Research Competition by the Estonian Research Council for “Del Pezzo Surfaces in Weighted Projective Spaces”	2014
	Best Senior Honours Project in Mathematics Edinburgh University	2014
	Summer Project Scholarship in Mathematics Edinburgh University, received three times	2011, 2012, 2013

Research talks	Birational models of terminal sextic double solids Imperial College London, UK	June 2020
	Birational models of terminal sextic double solids Seoul, South Korea	Dec 2019
	Classification of simple singularities Basel, Switzerland	Dec 2019

Birational models of terminal sextic double solids Basel, Switzerland	Dec 2019
Birational models of terminal sextic double solids GAeL XXVII (Géométrie Algébrique en Liberté), Bucharest, Romania	Jun 2019
Elliptic curves over finite fields Tartu, Estonia	Jun 2019
Classification of simple singularities KCL/UCL Junior Geometry Seminar, London, UK http://www.ucl.ac.uk/junior-geometry/videos-materials/2019-01-17-erik.html	Jan 2019
Birational models of terminal sextic double solids 8th swiss-french workshop in Algebraic Geometry, Charmey, Switzerland	Jan 2019
Introduction to algebraic geometry for cryptographers Tartu, Estonia	Dec 2018
Determining singularity type of Fano hypersurfaces Algebra and its Applications, Tartu, Estonia	July 2018
Birational geometry of Fano 3-folds Annual Conference of Mathematics Research Students, Loughborough, UK	May 2018
Birational models of terminal sextic double solids Junior Algebraic geometry Warwick Seminar (JAWS), Warwick, UK	Feb 2018

Academic responsibilities

Referee European Journal of Mathematics	2019
Organiser of weekly geometry PhD student seminars https://sites.google.com/site/geomsslboro/	2017–2020
Coach of the Estonian team for the International Mathematical Olympiad 16 training sessions for 6 to 26 students	2011–2016

Selected Conferences

9th swiss-french workshop in Algebraic Geometry Charmey, Switzerland	Jan 2020
TiME 2019 — Curves and Surfaces — A History of Shapes Levico Terme, Italy	Sept 2019
Del Pezzo surfaces and Fano varieties Düsseldorf, Germany	Jul 2019
Applied Algebraic Geometry Loughborough, UK	Jul 2019
GAeL XXVII (Géométrie Algébrique en Liberté) Bucharest, Romania	June 2019
8th swiss-french workshop in Algebraic Geometry Charmey, Switzerland	Jan 2019
Constructions and obstructions in birational geometry Edinburgh, UK	Nov 2018

Varieties and Group Actions Warsaw, Poland	Sept 2018
GAeL XXVI (Géométrie Algébrique en Liberté) Strasbourg, France	June 2018
New Advances in Fano Manifolds Cambridge, UK	Dec 2017
Rationality, stable rationality and birationally rigidity of complex algebraic varieties Udine, Italy	Sept 2017
Classification, Computation, and Construction: New Methods in Geometry Warwick, UK	Oct 2016
EDGE Days: Workshop on Singular Del Pezzo Surfaces Edinburgh, UK	June 2015
GAeL XXI (Géométrie Algébrique en Liberté) Stockholm, Sweden	June 2013

Teaching

Computer course (LaTeX, Matlab, Maple) Teaching assistant, University of Basel, Lab and via Zoom, 60 students	Autumn 2020
Functional Programming Teaching assistant, Loughborough University, Lab, 75 students	Autumn 2018, 2019
Communicating Mathematics Teaching assistant, Loughborough University, Lab, 50 students	Spring 2018
Analysis 3 Teaching assistant, Loughborough University, Exercise classes, 40 students	Autumn 2017

Languages

Estonian (native)	English (full proficiency)	Russian (B1)
French (3 years of study)		

Programming

Maxima	Macaulay2	Singular
Python	Java	C++
Haskell	Javascript	CUDA

References

Dr Hamid Ahmadinezhad, email: h.ahmadinezhad@lboro.ac.uk
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Prof Ivan Cheltsov, email: i.cheltsov@ed.ac.uk
School of Mathematics, University of Edinburgh

Prof Paolo Cascini, email: p.cascini@imperial.ac.uk
Department of Mathematics, Imperial College London

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