

RUADHAÍ DERVAN

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POSITIONS

École Polytechnique, Paris Postdoctoral position, hosted by Sébastien Boucksom.	September 2017 - August 2018
University of Cambridge, Gonville & Caius College Research Fellowship.	October 2016 - September 2021
Université libre de Bruxelles Visiting PhD student, hosted by Joel Fine. Fondation Wiener-Anspach Scholar.	February - August 2016

EDUCATION

PhD in Mathematics , University of Cambridge St. John's College Thesis title "Canonical Kähler metrics and K-stability". Supervised by Julius Ross.	2012 - 2016
Part III of the Mathematical Tripos (MASt) , University of Cambridge St. John's College Graduated with distinction.	2011 - 2012
B.A.(Mod) Mathematics , Trinity College Dublin First class honours. Graduated top of year.	2007 - 2011

PUBLICATIONS AND PREPRINTS

Extremal metrics on fibrations (<i>with L. Sektnan</i>)	<i>arXiv:1712.05374</i>
Stable maps in higher dimensions (<i>with J. Ross</i>)	<i>arXiv:1708.09750</i>
Hermitian Yang-Mills connections on blowups (<i>with L. Sektnan</i>)	<i>arXiv:1707.07638</i>
The Kähler-Ricci flow and optimal degenerations (<i>with G. Székelyhidi</i>)	<i>arXiv:1612.07299</i>
Relative K-stability for Kähler manifolds	<i>Math. Ann. (to appear)</i>
K-stability for Kähler manifolds (<i>with J. Ross</i>)	<i>Math. Res. Lett. Vol. 24 No. 3 (2017), pp. 689-739</i>
A finite dimensional approach to Donaldson's J-flow (<i>with J. Keller</i>)	<i>Comm. Anal. Geom. (to appear)</i>
On K-stability of finite covers	<i>Bull. Lond. Math. Soc. (2016) 48 (4) pp. 717-728</i>
Non-reductive automorphism groups, the Loewy filtration and K-stability (<i>with G. Codogni</i>)	<i>Ann. Inst. Fourier (Grenoble) 66 no. 5 (2016) pp. 1895-1921</i>
Alpha invariants and coercivity of the Mabuchi functional on Fano manifolds	<i>Ann. Fac. Sci. Toulouse Math. Sér. 6, 25 no. 4 (2016), p. 919-934</i>
Uniform stability of twisted constant scalar curvature Kähler metrics	<i>Int. Math. Res. Not. IMRN (2016) Vol 15 pp. 4728-4783</i>
Alpha invariants and K-stability for general polarizations of Fano varieties	<i>Int. Math. Res. Not. IMRN (2015) Vol 16 pp. 7162-7189</i>

GRANTS

INdAM Grant Awarded to fund the workshop "Moduli of K-stable varieties", with G. Codogni, J. Stoppa and F. Viviani.	2016
London Mathematical Society ECM Grant Awarded to fund personal costs of the European Congress of Mathematics 2016 in Berlin.	2016

London Mathematical Society Scheme 8 Grant, Foundation Compositio Grant 2015
 Awarded to fund “Postgraduate Conference in Complex Geometry” at the University of Cambridge, with J. Ross.

ACADEMIC VISITS

University of Notre Dame	September 2016
Visited Gábor Székelyhidi for three weeks.	
Simons Center for Geometry and Physics, Stony Brook University	September - October 2015
Participated in the program “Moduli spaces and singularities in algebraic and Riemannian geometry” for four weeks.	

INVITED SEMINAR AND CONFERENCE TALKS

Aarhus University (<i>upcoming</i>)	February 2018
Institut de Mathématiques de Toulouse (<i>upcoming</i>)	February 2018
Joint Bochum, Essen, Köln and Wuppertal Complex Geometry Seminar (<i>upcoming</i>)	February 2018
Université Paris-Sud (<i>upcoming</i>)	January 2018
Constant Scalar Curvature Metrics in Kähler and Sasaki Geometry, CIRM Marseille (<i>upcoming</i>)	January 2018
University of Gothenburg Chalmers	November 2017
École Polytechnique Paris	November 2017
Université du Québec à Montréal	October 2017
Rutgers University-Newark	October 2017
Joint King's College London and University College London Geometry Seminar	October 2017
Symposium in Geometry and Differential Equations, AMSS Beijing	July 2017
Current Developments and New Directions in Kähler Geometry, University of Notre Dame	June 2017
SISSA Trieste	May 2017
Université Pierre-et-Marie-Curie (Paris VI Jussieu)	May 2017
Positivity in Algebraic and Complex Geometry, ICMS Edinburgh	April 2017
Cambridge-Tokyo Algebraic Geometry Workshop, Isaac Newton Institute	March 2017
University of Edinburgh	February 2017
Newcastle University	December 2016
Imperial College London	November 2016
University of Notre Dame	September 2016
European Congress of Mathematics Berlin, Symposium Talk	July 2016
Recent Advances in Complex Differential Geometry, Toulouse	June 2016
Institut de Mathématiques de Toulouse	May 2016

Università degli Studi di Pavia	November 2015
Joint Johns Hopkins University and University of Maryland Complex Geometry Seminar	October 2015
Simons Center for Geometry and Physics, Stony Brook University	September 2015
Edge Days, University of Edinburgh	June 2015
Università degli Studi Roma Tre	March 2015
Université Pierre-et-Marie-Curie (Paris VI Jussieu)	February 2015
Università degli Studi di Pavia	November 2014
Irish Workshop on Kähler Geometry and Geometric Analysis, University College Cork	May 2014
Aix-Marseille Université	November 2013
Edge Days, University of Edinburgh	June 2013
Junior seminars in Imperial College London (twice), Université libre de Bruxelles and University of Bath (Calf Junior Algebraic Geometry Seminar)	2013 – 2015

ACTIVITIES

Organiser of conference “Moduli of K-stable varieties”	July 2017
Organiser of conference “Postgraduate Conference in Complex Geometry”	September 2016
Local organiser of seminar series “Calf Junior Algebraic Geometry Seminar”	October 2013 - January 2016
Organiser of seminar series “Geometry Tea Junior Seminar”	October 2013 - October 2014
Organiser of Departmental Happy Hour	June 2013 - September 2014
Referee for Asian J. Math, Compos. Math., Geom. Topol., Int. Math. Res. Notices, J. Eur. Math. Soc., J. Inst. Math. Jussieu, Proc. Edinb. Math. Soc., two conference proceedings and Mathematical Reviews (MathSciNet).	2016 - present

AWARDS

Smith-Knight & Rayleigh-Knight Prize Awarded for an essay based on research completed in the first year and a half of PhD work.	2014
St John's College Scholarship and College Prize In recognition of high achievement in MAST in mathematics.	2012
Bishop Law Prize and Gold Medal Awarded for finishing first in the mathematics degree with high final mark.	2011
Minchin Prize, Lloyd Exhibition and Hamilton Prize Awarded for finishing first in the third year examinations of the mathematics and theoretical physics degrees.	2010
Foundation Scholarship Awarded on the basis of scholarship exams taken in second year. Approximately fifteen are awarded across all disciplines to second year students each year.	2009

TEACHING

DPMMS, University of Cambridge Supervisor Supervised Part II Differential Geometry.	Michaelmas term 2016
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DPMMS, University of Cambridge
Examples Class Lecturer

Lent term 2014, 2015

Presented assignment solutions and explanations to Part III Complex Manifolds students.

Linyi University, China
Summer Lecturer

July 2012

Lectured an introductory 12 hour course on partial differential equations to final year mathematics undergraduates.

School of Mathematics, Trinity College Dublin
Revision lecturer

August 2010, 2011

Lectured 6 hour revision courses for 2nd year mathematics and theoretical physics students in Complex Analysis (2010) and Equations of Mathematical Physics (2010, 2011).

MEMBERSHIP

London Mathematical Society

2016 - present

CONFERENCES ATTENDED

Constant Scalar Curvature Metrics in Kähler and Sasaki Geometry (*upcoming*)

CIRM Marseille, January 14 - 19 2018

Geometry of Manifolds

Simons Center for Geometry and Physics, October 23 - 27 2017

British Algebraic Geometry meeting

Cambridge, September 11 - 13 2017

Symplectic geometry - celebrating the work of Simon Donaldson

Cambridge, August 14 - 18 2017

Moduli of K-stable varieties

Rome, July 10 - 14 2017

Symposium in Geometry and Differential Equations

AMSS Beijing, July 3 - 7 2017

Current Developments and New Directions in Kähler Geometry

University of Notre Dame, June 26 - 30 2017

Positivity in Algebraic Geometry

ICMS Edinburgh, April 24 - 28 2017

Stability and moduli spaces

American Institute of Mathematics San Jose, January 9 - 13 2017

Algebraic Geometry: Old and New

University of Oxford, September 26 - 30 2016

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University of Oxford, September 9 - 11 2016

European Congress of Mathematics Berlin

Berlin, July 18 - 22 2016

Recent Advances in Complex Differential Geometry

Institut de Mathématiques de Toulouse, June 13 - 22 2016

British Algebraic Geometry meeting

ICMS Edinburgh, April 13 - 15 2016

Postgraduate Conference in Complex Geometry

University of Cambridge, September 9 - 11 2015

Cones and Positivity

Loughborough University, August 4 - 7 2015

2015 Summer Research Institute on Algebraic Geometry

University of Utah, Salt Lake City, July 13 - 17 2015

Edge Days

University of Edinburgh, 5 - 7 June 2015

British Algebraic Geometry meeting

University of Warwick, September 22 - 24, 2014

Asymptotic Aspects of Complex and Algebraic Geometry

Università di Milano Bicocca, 23 - 28 June 2014

Edge Days	University of Edinburgh, 6 - 8 June 2014
Irish Workshop on Kähler Geometry and Geometric Analysis	University College Cork, 12 - 14 May 2014
Minicourses on Stability	University of Coimbra, 10 - 12 April 2014
Traumatic Workshop	Imperial College, 3 - 4 April 2014
William Rowan Hamilton Geometry and Topology Workshop	Trinity College Dublin, 27 - 31 August 2013
Ricci curvature: limit spaces and Kähler geometry	ICMS, Edinburgh, 1 - 5 July 2013
Edge Days	University of Edinburgh, 7 - 9 June 2013
Compactifying Moduli Spaces	CRM Barcelona, 27 - 31 May 2013