

**Alessio CORTI (updated 06/23)**  
Dep. of Mathematics, Imperial College London  
180 Queen's Gate, London SW7 2AZ, UK  
+44(0)20 7594 1870, a.corti@imperial.ac.uk

## EDUCATION

University of Utah, Ph.D., 1992

University of Pisa, BA and Scuola Normale superiore, Diploma, 1987

## EMPLOYMENT

**Imperial College London** Chair of Pure Mathematics 2005–present

**University of Cambridge** Reader 2001–05, Lecturer 1996–01

**University of Chicago** L. E. Dickson Instructor in Mathematics 1993–96

**MSRI, Berkeley** Post Doc, 1992–93

## SELECTED PUBLICATIONS

1. *Mirror Symmetry and smoothing Gorenstein toric affine 3-folds* (with M. Filip and A. Petracci), Facets of Algebraic Geometry (A Collection in Honor of William Fulton's 80<sup>th</sup> Birthday), vol. I (P. Aluffi, D. Anderson, M. Hering, M. Mustața, S. Payne Eds.), London Math. Soc. Lec. Note Ser. 472, Cambridge Univ. Press, Cambridge, 2022, pp. 132–165
2. *Hodge-Theoretic Mirror Symmetry for Toric Stacks* (with T. Coates, H. Iritani, and H.-H. Tseng), J. Differential Geom. **114**, No. 1, 2020, pp. 41–115
3. *Quantum Periods for 3-Dimensional Fano Manifolds* (with T. Coates, S. Galkin and A. Kasprzyk), Geom. Topol. **20**, No. 1, 2016, pp. 103–256
4.  *$G_2$ -manifolds and associative submanifolds via semi-Fano 3-folds* (with M. Haskins, J. Nordström and T. Pacini), Duke Math. J. **164**, No. 10, 2015, pp. 1971–2092
5. *The quantum orbifold cohomology of weighted projective spaces* (with T. Coates, Y.-P. Lee and H.-H. Tseng), Acta Math. **202**, No. 2, 2009, pp. 39–193
6. *Computing genus-zero twisted Gromov–Witten invariants* (with T. Coates, H. Iritani and H.-H. Tseng), Duke Math. J. **147**, No. 3, 2009, pp. 377–438
7. *Birational geometry of terminal quartic 3-folds I* (with M. Mella), Amer. J. Math. **126**, No. 4, 2004, pp. 739–761
8. *Twisted bundles and admissible covers* (with D. Abramovich and A. Vistoli), Comm. Algebra **31**, No. 8, 2003 (special issue in honor of Steven L. Kleiman), pp. 3547–3618
9. *Motivic decomposition and Intersection Chow Groups I* (with M. Hanamura), Duke Math. J. **103**, No. 3, 2000, pp. 459–522
10. *Factoring birational maps of threefolds after Sarkisov*, J. Algebraic Geom. **4**, No. 2, 1995, pp. 223–254

## RESEARCH STUDENTS AND POSTDOCS

**Students** T. Venkatachalam (co-supervised with E. Segal), R. Crumplin (co-supervised with K. Rietsch, King's current); W. Lutz, Postdoc UM Amherst (co-supervised with E. Segal, UCL 2022); G. Gugiatti, Postdoc ICTP (Imperial, 2020); K. Kubiliūtė (co-supervised with K. Rietsch, King's 2020); A. Petracci, Università di Bologna (Imperial 2017); M. Akhtar (co-supervised with T. Coates and A. Kasprzyk, Imperial 2015); A. MacPherson (co-supervised with R. Thomas, Imperial 2014); A. Strangeway (co-supervised with T. Coates, Imperial 2013); V. Lazić, Professor Universität des Saarlandes, (Cambridge 2009); A.-S. Kaloghiros, Reader Brunel University London (Cambridge 2007); A. Chiodo, Professor of Mathematics IMJ Jussieu (Cambridge 2003); P. Hacking, Full Professor U. Mass Amherst (Cambridge 2001).

**Postdocs** T. Ducat, Willmore Fellow Durham (PDRA EP/N03189X/1, 10/2019–09/2020); S. Filippini, Università del Salento (PDRA EP/N03189X/1, 01/2017–12/2019); L. Heuberger, PDRA University of Bath (PDRA EP/N03189X/1, 10/2018–12/2018); H. Argüz, Assistant Prof. University of Georgia (PDRA EP/N03189X/1, 01/2017–06/2017); C. Manolache, Lecturer University of Sheffield (Marie Curie EU Fellow 2012–14); A. Kasprzyk, Associate Professor University of Nottingham (PDRA EP/I008128/1, 2010–14); P. Johnson, Lecturer University of Sheffield (PDRA EP/E022162/1, 2009–10); H. Iritani, Associate Professor University of Kyoto (PDRA EP/E022162/1, 2007–09); F. Ambro, Institute of Mathematics “Simion Stoilow” of the Romanian Academy (Marie Curie EU Fellow 2002–03); M. Mella, Full Professor Università di Ferrara (CNR Postdoctoral Fellow, 1998–99).

## FUNDING

1. EP/N03189X/1 Programme Grant *Classification, Computation, and Construction: New Methods in Geometry*, Co-I T. Coates (Imperial), M. Gross (Cambridge), M. Reid (Warwick), 2016–23
2. EP/I008128/1 *Extremal Laurent Polynomials*, 2010–14
3. EP/E022162/1 *Fano varieties and quantum cohomology*, 2007–10
4. EP/G06170X/1 Programme Grant *Applied derived categories*, PI R. Thomas (Imperial), 2010–15
5. EP/E04137X/1 *2007–08 Warwick EPSRC Symposium on Algebraic Geometry*, PI M. Reid (Warwick), 2007–08

## SELECTED INVITED LECTURES

- 03/23 *Higher dimensional algebraic geometry*, NTU, Taiwan
- 09/22 *British Algebraic Geometry symposium*, London
- 12/19 *LUCIA GEOMETRICA – a celebration of geometry*, Stockholm University
- 05/19 *Who’s Who in Mirror Symmetry?*, HSE Moscow
- 09/18 *Complex Algebraic Geometry*, Cetraro
- 06/12 *6ECM Satellite Meeting Algebraic and Arithmetic Geometry*, Kraków, Poland
- 07/06 *Joint SMF-UMI meeting, Algebraic Geometry session*, Torino, Italy
- 08/05 *2005 AMS Summer Institute Algebraic Geometry*, Seattle, USA
- 10/02 *The Fano Conference*, Torino, Italy
- 08/98 ICM 98-satellite conference *Algebraic and Arithmetic Geometry*, Essen, Germany
- 07/95 *AMS Summer Research Institute on Algebraic Geometry*, UCSC, Santa Cruz, USA

**SELECTED SPECIAL LECTURE SERIES**

08/16 *Advanced School on Moduli Spaces, Mirror Symmetry and Enumerative Geometry*, ICTP, Trieste, Italy

09/13 *Topics in Higher Dimensional Algebraic Geometry*, Pragmatic 2013 Research school in Algebraic Geometry and Commutative Algebra (with P. Cascini and Y. Kawamata), Catania, Italy

01/13, *Special RTG Lecture Series in Algebra-Geometry-Topology, Mirror symmetry and Fano manifolds*, UT Austin, USA

04/13 *Minicourse on Mirror Symmetry and Fano 3-folds*, NCTS, Taipei, Taiwan

07/11 *Extremal Laurent Polynomials*, School on “Moduli of curves and Gromov–Witten theory,” Institut Fourier, Grenoble, France

07/08 *New methods in orbifold Gromov-Witten theory* (part of the “School and Workshop on Aspects of Moduli”), centro De Giorgi, Pisa, Italy

06/07 *Geometry of Complex Projective Varieties and the Minimal Model Program*, Institut Fourier, Grenoble, France

**SELECTED LONG-TERM VISITS**

01/17–03/17 IMPA, Rio de Janeiro

03/13–04/13 National Taiwan University, Taiwan

01/08–05/08 MSRI Research Professor, Berkeley, USA

04/04–09/04 Visiting Professor, University of Tokyo, Japan

**HONOURS**

Invited lecture at the 6<sup>th</sup> ECM, Kraków 2012

Conferenza generale, *Congresso Nazionale dell’UMI*, Bologna 2011

LMS Whitehead Prize, 2002

**EDITORIAL BOARDS**

EPSRC, Peer Review College

London Mathematical Society, Editorial Advisor

Rendiconti del Seminario Matematico della Università di Padova, Editor