List of Works

Alessio Corti

(Last modified: March 2016)

Recent arXiv articles

1. *The Sarkisov program for Mori fibred Calabi–Yau pairs* (with A.-S. Kaloghiros), `arXiv:1504.00557`, 12 pp., accepted for publication on Alg. Geom.

2. *Some Applications of the Mirror Theorem for Toric Stacks* (with T. Coates, H. Iritani and H.-H. Tseng), `arXiv:math.AG/1401.2611`, 23 pp., submitted

Journal articles

3. *Quantum Periods for 3-Dimensional Fano Manifolds* (with T. Coates, S. Galkin and A. Kasprzyk), Geom. Topol. **20**, no. 1, 2016, 103–256

4. *Mirror symmetry and the classification of orbifold del Pezzo surfaces* (with M. Akhtar, T. Coates, L. Heuberger, A. Kasprzyk, A. Oneto and A. Petracci), Proc. Amer. Math. Soc. **144**, No. 2, 2016, 513–527

5. *A Mirror Theorem for Toric Stacks* (with T. Coates, H. Iritani and H.-H. Tseng), Comp. Math. **151**, 2015, 1878–1912

6. *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, 1971–2092

7. *Asymptotically cylindrical Calabi–Yau 3-folds from weak Fano 3-folds* (with M. Haskins, J. Nordström and T. Pacini), Geom. Topol. **17**, no. 4, 2013, pp. 1955–2059

8. *New outlook on the Minimal Model Program, II* (with V. Lazić), Math. Ann. **356**, no. 2, 2013, pp. 617–633

9. *Hypergeometric equations and weighted projective spaces* (with V. Golyshev), Sci. China Math. **54**, no. 8, 2011, pp. 1577–1590

10. *Introduction to the minimal model program and the existence of flips*, (with A.-S. Kaloghiros and V. Lazić), Bull. Lond. Math. Soc. **43**, no. 3, 2011, pp. 415–418

11. *Three equivalent conjectures on the birational geometry of Fano 3-folds*, Tr. Mat. Inst. Steklova **264**, Mnogomernaya Algebraicheskaya Geometriya, 2009, pp. 52–54; translation in Proc. Steklov Inst. Math. **264**, no. 1, 2009, pp. 45–47

12. *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

13. *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

14. *Motivic decomposition and Intersection Chow Groups II* (with M. Hanamura), Pure Appl. Math. Q. **3**, no 1, part 3, 2007, pp. 181–203

15. *Conifold transitions and Mori theory* (with I. Smith), Math. Res. Lett. **12**, no. 5-6, 2005, pp. 767–778

16. *What is...a flip?*, Notices Amer. Math. Soc. **51**, 2004, pp. 1350–1351

17. *Birational geometry of terminal quartic 3-folds I* (with M. Mella), Amer. J. Math. **126**, no. 4, 2004, pp. 739–761

18. *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

19. *Motivic decomposition and Intersection Chow Groups I* (with M. Hanamura), Duke Math. J. **103**, no. 3, 2000, pp. 459–522

20. *Del Pezzo surfaces over Dedekind schemes*, Ann. of Math. (2) **144**, no. 3, 1996, pp. 641–683

21. *Factoring birational maps of threefolds after Sarkisov*, J. Algebraic Geom. **4**, no. 2, 1995, pp. 223–254

22. *Polynomial bounds on the number of automorphisms of a surface of general type*, Ann. Scient. Éc. Norm. Sup. (4) **24**, no. 1, 1991, pp. 113–137

Conference proceedings articles

23. *Mirror Symmetry and Fano Manifolds* (with T. Coates, S. Galkin, V. Golyshev and A. Kasprzyk), European Congress of Mathematics (Kraków, 2-7 July, 2012), November 2013 (824 pages), pp. 285–300, ISBN 978-3-03719-120-0, DOI 10.4171/120

24. *Finite generation of adjoint rings after Lazić: an introduction*, Classification of algebraic varieties, pp. 197–220, EMS Ser. Congr. Rep., Eur. Math. Soc., Zürich, 2011

25. *Lectures on flips and minimal models* (with P. Hacking, J. Kollár, R. Lazarsfeld and M. Mustaţă), Analytic and algebraic geometry, pp. 557–583, IAS/Park City Math. Ser. **17**, Amer. Math. Soc., Providence, RI, 2010

26. *Birational geometry of 3-fold Mori fibre spaces* (with G. Brown and F. Zucconi), Proceedings of the Fano Conference (Torino, Italy, 29 Sept.–5 Oct. 2002), A. Conte, A. Collino and M. Marchisio Eds., Torino, 2004, pp. 235–275

27. *Weighted Grassmannians* (with M. Reid), in "Algebraic Geometry (a volume in memory of Paolo Francia)", M. C. Beltrametti, F. Catanese, C. Ciliberto, A. Lanteri and C. Pedrini Eds., Walter de Gruyter, Berlin and New York, 2002, pp. 141–163

28. *Recent results in higher dimensional birational geometry*, in "Complex Algebraic Geometry", MSRI Publications **28**, 1995, pp. 35–56

Book chapters

29. *Saturated mobile b-divisors on weak del Pezzo klt surfaces* (with J. McKernan, and H. Takagi), in "Flips for 3-folds and 4-folds", Oxford Lecture Series in Mathematics and Its Applications **35**, A. Corti Ed., Oxford University Press, 2007, pp. 111–120

30. *3-fold flips after Shokurov*, in "Flips for 3-folds and 4-folds", Oxford Lecture Series in Mathematics and Its Applications **35**, A. Corti Ed., Oxford University Press, 2007, pp. 18–48

31. *Singularities of linear systems and 3-fold birational geometry*, in "Explicit Birational Geometry of 3-folds", London Math. Soc. Lecture Note Ser. **281**, A. Corti and M. Reid Eds., Cambridge University Press, 2000, pp. 259–312

32. *Fano 3-fold hypersurfaces* (with A. Pukhlikov and M. Reid), in "Explicit Birational Geometry of 3-folds", London Math. Soc. Lecture Note Ser. **281**, A. Corti and M. Reid Eds., Cambridge University Press, 2000, pp. 175–258

33. *Adjunction of log divisors*, in "Flips and abundance for threefolds", Astérisque **211**, 1992, pp. 171–182

34. *Existence of terminal flips* (with J. Kollár), in "Flips and abundance for threefolds", Astérisque **211**, 1992, pp. 69–73

Books

35. *Rational and nearly rational varieties* (main authors J. Kollár and K. Smith), Cambridge Studies in Advanced Mathematics **92**, Cambridge University Press, Cambridge, 2004. vi+235 pp.

Books edited

36. *Explicit birational geometry of 3-folds*, London Math. Soc. Lecture Note Ser. **281**, A. Corti and M. Reid Eds., Cambridge University Press, 2000, v+349 pp.

37. *Flips for 3-folds and 4-folds*, Oxford Lecture Series in Mathematics and Its Applications **35**, A. Corti Ed., Oxford University Press, 2007, 200 pp.

Unpublished

38. *The work of Hacon anc McKernan*, unpublished manuscript based on notes for a talk not given at the Clay Institute on the occasion of the research award to Hacon and McKernan, November 2009, 19 pp., available at `http://www.claymath.org/library/research_award/corti.pdf`

39. *Semistable 3-fold flips*, arXiv:math.AG/9505035, 1995, 14 pages; appeared in substantially revised form as Chapter 7 of the book *Birational Geometry of Algebraic Varieties*, by J. Kollár and S. Mori (with the collaboration of C. H. Clemens and A. Corti), Cambridge Tracts in Mathematics **134**, Cambridge University Press, 1998, viii+254 pp.

40. *Families of Del Pezzo surfaces*, University of Utah PhD dissertation, 1992, 58 pp.

Outreach Publications

41. *Drawing in Mathematics: From Inverse Vision to the Liberation of Form* (with G. Anderson, D. Buck and T. Coates), Leonardo **48**, No. 5, 2015, 439–448

42. *Mathematics and Art: notes from an artistic collaboration* (with G. Anderson), in "Imagine Maths 4. Between Culture and Mathematics", M. Emmer, M. Abate and M. Villareal Eds., Unione Matematica Italiana, 2015

43. *Drawing and Mathematics: Geometry, Reasoning, and Form* (with G. Anderson, D. Buck and T. Coates), TRACEY journal special edition: Drawing in STEAM, 2014