

List of Works by Alessio Corti

11th February 2020

Recent arXiv articles

1. *On the Topology of Fano Smoothings* (with Tom Coates and Genival da Silva Jr), [arXiv:1912.04383](#). 16 pp.
2. *Hyperelliptic Integrals and Mirrors of the Johnson–Kollár del Pezzo Surfaces* (with Giulia Gugiatti), [arXiv:1901.09026](#). 28 pp.

Journal articles

3. *Some Applications of the Mirror Theorem for Toric Stacks* (with Tom Coates, Hiroshi Iritani and Hsian-Hua Tseng), *Advances in Theoretical and Mathematical Physics* **23**, No. 3, 2019, 767–802
4. *Hodge-theoretic mirror symmetry for toric stacks* (with Tom Coates, Hiroshi Iritani and Hsian-Hua Tseng), *J. Differential Geom.* **114**, No. 1, 2020, 41–115
5. *Del Pezzo surfaces with $1/3(1, 1)$ points* (with Liana Heuberger), *Manuscripta Math.* **153**, No. 1–2, 2017, 71–118
6. *Erratum to “Conifold transitions and Mori theory* (with Ivan Smith), *Math. Res. Lett.* **23**, No. 3, 2016, 733–734
7. *The Sarkisov program for Mori fibred Calabi–Yau pairs* (with Anne-Sophie Kaloghiros), *Algebr. Geom.* 3, No 3, 2016, 370–384
8. *Quantum Periods for 3-Dimensional Fano Manifolds* (with Tom Coates, Sergey Galkin and Alexander Kasprzyk), *Geom. Topol.* **20**, no. 1, 2016, 103–256

9. *Mirror symmetry and the classification of orbifold del Pezzo surfaces* (with Mohammad Akhtar, Tom Coates, Liana Heuberger, Alexander Kasprzyk, Alessandro Oneto and Andrea Petracci), Proc. Amer. Math. Soc. **144**, No. 2, 2016, 513–527
10. *A Mirror Theorem for Toric Stacks* (with Tom Coates, Hiroshi Iritani and Hsian-Hua Tseng), Comp. Math. **151**, 2015, 1878–1912
11. *G_2 -manifolds and associative submanifolds via semi-Fano 3-folds* (with Mark Haskins, Johannes Nordström and Tommaso Pacini), Duke Math. J. **164**, No. 10, 2015, 1971–2092
12. *Asymptotically cylindrical Calabi–Yau 3-folds from weak Fano 3-folds* (with Mark Haskins, Johannes Nordström and Tommaso Pacini), Geom. Topol. **17**, no. 4, 2013, pp. 1955–2059
13. *New outlook on the Minimal Model Program, II* (with Vladimir Lazić), Math. Ann. **356**, no. 2, 2013, pp. 617–633
14. *Hypergeometric equations and weighted projective spaces* (with Vasily Golyshev), Sci. China Math. **54**, no. 8, 2011, pp. 1577–1590
15. *Introduction to the minimal model program and the existence of flips*, (with Anne-Sophie Kaloghiros and Vladimir Lazić), Bull. Lond. Math. Soc. **43**, no. 3, 2011, pp. 415–418
16. *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
17. *The quantum orbifold cohomology of weighted projective spaces* (with Tom Coates, Yuan-Pin Lee and Hsian-Hua Tseng), Acta Math. **202**, no. 2, 2009, pp. 39–193
18. *Computing genus-zero twisted Gromov–Witten invariants* (with Tom Coates, Hiroshi Iritani and Hsian-Hua Tseng), Duke Math. J. **147**, no. 3, 2009, pp. 377–438
19. *Motivic decomposition and Intersection Chow Groups II* (with Masaki Hanamura), Pure Appl. Math. Q. **3**, no 1, part 3, 2007, pp. 181–203

20. *Conifold transitions and Mori theory* (with Ivan Smith), *Math. Res. Lett.* **12**, no. 5-6, 2005, pp. 767–778
21. *What is...a flip?*, *Notices Amer. Math. Soc.* **51**, 2004, pp. 1350–1351
22. *Birational geometry of terminal quartic 3-folds I* (with Massimiliano Mella), *Amer. J. Math.* **126**, no. 4, 2004, pp. 739–761
23. *Twisted bundles and admissible covers* (with Dan Abramovich and Angelo Vistoli), *Comm. Algebra* **31**, no. 8, 2003 (special issue in honor of Steven L. Kleiman), pp. 3547–3618
24. *Motivic decomposition and Intersection Chow Groups I* (with Masaki Hanamura), *Duke Math. J.* **103**, no. 3, 2000, pp. 459–522
25. *Del Pezzo surfaces over Dedekind schemes*, *Ann. of Math. (2)* **144**, no. 3, 1996, pp. 641–683
26. *Factoring birational maps of threefolds after Sarkisov*, *J. Algebraic Geom.* **4**, no. 2, 1995, pp. 223–254
27. *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

28. *Mirror Symmetry and Fano Manifolds* (with Tom Coates, Sergey Galkin, Vasily Golyshev and Alexander 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
29. *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
30. *Lectures on flips and minimal models* (with Paul Hacking, János Kollár, Robert Lazarsfeld and Mircea Mustață), *Analytic and algebraic geometry*, pp. 557–583, IAS/Park City Math. Ser. **17**, Amer. Math. Soc., Providence, RI, 2010

31. *Birational geometry of 3-fold Mori fibre spaces* (with Gavin Brown and Francesco 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
32. *Weighted Grassmannians* (with Miles 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
33. *Recent results in higher dimensional birational geometry*, in “Complex Algebraic Geometry”, MSRI Publications **28**, 1995, pp. 35–56

Book chapters

34. *Saturated mobile b -divisors on weak del Pezzo klt surfaces* (with James McKernan, and Hiromichi 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
35. *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
36. *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
37. *Fano 3-fold hypersurfaces* (with Aleksandr Pukhlikov and Miles 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
38. *Adjunction of log divisors*, in “Flips and abundance for threefolds”, Astérisque **211**, 1992, pp. 171–182
39. *Existence of terminal flips* (with János Kollár), in “Flips and abundance for threefolds”, Astérisque **211**, 1992, pp. 69–73

Books

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

Books edited

41. *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.
42. *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

43. *The work of Hacon and 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
44. *Semistable 3-fold flips*, arXiv:math.AG/9505035, 1995, 14 pp.; appeared in substantially revised form as Chapter 7 of the book *Birational Geometry of Algebraic Varieties*, by János Kollár and Shigefumi Mori (with the collaboration of C. Herbert Clemens and Alessio Corti), Cambridge Tracts in Mathematics **134**, Cambridge University Press, 1998, viii+254 pp.
45. *Families of Del Pezzo surfaces*, University of Utah PhD dissertation, 1992, 58 pp.

Outreach Publications

46. *Drawing in Mathematics: From Inverse Vision to the Liberation of Form* (with Gemma Anderson, Dorothy Buck and Tom Coates), Leonardo **48**, No. 5, 2015, 439–448
47. *Mathematics and Art: notes from an artistic collaboration* (with Gemma Anderson), in “Imagine Maths 4. Between Culture and Mathematics”, M. Emmer, M. Abate and M. Villareal Eds., Unione Matematica Italiana, 2015
48. *Drawing and Mathematics: Geometry, Reasoning, and Form* (with Gemma Anderson, Dorothy Buck and Tom Coates), TRACEY journal special edition: Drawing in STEAM, 2014