CURRICULUM VITAE et STUDIORUM

of FILIPPO VIVIANI

PERSONAL INFORMATION

- Born at Pesaro (Italy) the 7th August of 1978
- Nationality: Italian
- Foreign Languages:
  1. English: fluent.
  2. Portoguese: fluent.
  3. Spanish: comprehension/reading.
  4. French: comprehension/reading.
- Web site: http://ricerca.mat.uniroma3.it/users/viviani
- E-mail: viviani@mat.uniroma3.it, filippo.viviani@gmail.it

EDUCATION

- MASTER DEGREE at University of Pisa.
  Thesis defended on 12 July 2001. Grade: 110/110 cum laude
  Title of the thesis: Ramification properties of radical extensions of the rationals.
  Advisor: prof. R. Dvornicich.
- DIPLOMA at SCUOLA NORMALE SUPERIORE of Pisa.
  Thesis defended on November 2002. Grade: 70/70 cum laude.
- PHD DEGREE at University of Rome II.
  Thesis defended on 25th of May 2007.
  Title of the thesis: Deformations of restricted simple Lie algebras.
  Advisor: prof. R. Schoof.

POSITIONS

- POST-DOC POSITION at Mittag-Leffler Institute of Stockholm, September 2006–June 2007.
  In the academic year 2006/2007, I had a post-doc position at the Mittag-Leffler Institute of Stockholm,where I participated at the special year on *Moduli spaces* under the direction of prof. T. Ekedhal and prof. C. Faber.
- POST-DOC POSITION at the Hümboldt University of Berlin, September 2007–December 2008.
  From September 2007 till December 2008, I had a post-doc position at the Hümboldt University of Berlin, where I partecipated in the International Research Training Group *Arithmetic and Geometry*, under the supervision of prof. G. Farkas and prof. J. Kramer.
- Member of the research center CMUC (=Centro de Matematica da Universidade de Coimbra), University of Coimbra (Portugal), 2009–2014.
- RICERCATORE (=research assistant) at the Roma Tre University, 2009–2014.
- PROFESSORE ASSOCIATO (=associate professor) at the Roma Tre University, 2014–present.

FELLOWSHIPS, AWARDS and GRANTS

- 2007: Post-Doc at the Mittag-Leffler Institute, Stockholm (Sweden).
- 2008-2009: Post-Doc at the Hümboldt University of Berlin (Germany).
- 2009-2014: Research Grant Ciência 2008 from the Fundação para a Ciência e a Tecnologia (Portugal).
- 2011-2014: Principal Investigador of the project "Espaços de moduli em geometria algébrica" funded by the FCT (=Fundaçâo para a Ciência e a Tecnologia) of the Ministry of Education and Research of Portugal (total budget €80.392).
- 2013-2018: Scientific coordinator of the Research Unit of Roma Tre of the FIRB project "Spazi di moduli e applicazioni" funded by MIUR, Ministry of Education, University and Research of Italy (the total budget for the Research Unit of Roma Tre is € 178.749).
- 2012: I obtained the Italian National Scientific Qualification to become Professor of *II fascia* (=Associate Professor), which is valid for 6 years.
- 2012: I obtained the Italian National Scientific Qualification to become Professor of *I fascia* (=Full Professor), which is valid for 6 years.
- 2014: I was awarded to the Guido Fubini prize for young italian geometers.
- 2019: I obtained the Italian National Scientific Qualification 2018/2020 to become Professor of *I fascia* (=Full Professor), which is valid until 04/09/2025.

PAPERS

1. *Slope inequalities for KSB-stable and K-stable families* (joint with G. Codogni, L. Tasin). To appear on Proc. London Math. Society. DOI: 10.1112/plms.12512. Preprint arXiv:2107.09553.
2. *The Picard group of the universal moduli stack of principal bundles on pointed smooth curves II* (joint with R. Fringuelli). To appear on Annali della Scuola Normale Superiore di Pisa. Preprint arXiv:2009.06274.
3. *On the first steps of the minimal model program for the moduli space of stable pointed curves* (joint with G. Codogni, L. Tasin). To appear on Journal of the Institute of Mathematics of Jussieu. DOI:10.1017/S1474748021000116. Preprint arXiv:1808.00231.
4. *Tropicalization of the universal Jacobian* (joint with M. Melo, S. Molcho, M. Ulirsch). Épijournal de Géométrie Algébrique, Volume 6 (2022), Article Nr. 15.
5. *The Picard group of the universal moduli stack of principal bundles on pointed smooth curves* (joint with R. Fringuelli). J. of Topology 15 (2022), 2065–2142.
6. *On some modular contractions of the moduli space of stable pointed curves* (joint with G. Codogni, L. Tasin). Algebra & Number Theory 15-5 (2021), 1245–1281.
7. *A support theorem for Hilbert schemes of planar curves, II* (joint with L. Migliorini, V. Schende). Compositio Math. 157 (2021), 835–882.
8. *Effective cycles on the symmetric product of a curve, II: the Abel-Jacobi faces* (joint with F. Bastianelli, A. Kouvidakis, A.F. Lopez). Rend. Lincei Mat. Appl. 31 (2020), 839–878.
9. *Moduli and periods of supersymmetric curves* (joint with G. Codogni). Advances in Theoretical and Mathematical Physics, Vol. 23, No. 2 (2019), pp. 345–402.
10. *Effective cycles on the symmetric product of a curve, I: the diagonal cone* (joint with F. Bastianelli, A. Kouvidakis, A.F. Lopez, with an Appendix of B. Moonen). Trans. Amer. Math. Soc. 372 (2019), no. 12, 8709–8758.

11. *Fourier-Mukai and autoduality for compactified Jacobians II* (joint with M. Melo, A. Rapagnetta). Geometry and Topology 23-5 (2019), 2335–2395.

12. *Fourier-Mukai and autoduality for compactified Jacobians I* (joint with M. Melo, A. Rapagnetta). J. Reine Angew. Math. 755 (2019), 1-65.

13. *The singularities and birational geometry of the universal compactified Jacobian* (joint with S. Casalaina-Martin, J. L. Kass). Algebraic Geometry 4 (3) (2017), 353–393.

14. *Fine compactified Jacobians of reduced curves* (joint with M. Melo, A. Rapagnetta). Trans. Amer. Math. Soc. 369 (2017), no. 8, 5341–5402.

15. *Moriwaki divisors and the augmented base loci of divisors on the moduli space of curves* (joint with S. Cacciola, A. F. Lopez). Michigan Math. J. 65 (2016), no. 3, 533–546.

16. *The local structure of compactified Jacobians* (joint work with S. Casalaina-Martin, J. L. Kass). Proc. London Math. Soc. 110 (2015), 510–542.

17. *Geometric invariant theory for polarized curves* (joint with G. Bini, F. Felici, M. Melo). Lecture Notes in Mathematics 2122 (2014).

18. *A tour on Hermitian symmetric manifolds.* Combinatorial Algebraic Geometry (Levico Terme, Italy 2013), Editors: Sandra Di Rocco, Bernd Sturmfels. Lecture Notes in Mathematics 2108, pp. 149–239 (2014).

19. *The Picard group of the compactified universal Jacobian* (joint with M. Melo). Documenta Mathematica 19 (2014), 457–506.

20. *Tropicalizing vs Compactifying the Torelli morphism.* Tropical and Non-Archimedean Geometry (Proceedings of the Conference Tropical and Non Archimedean Geometry, Bellairs Research Institute, May 2011), Contemp. Math. 605 (2013), 181–210.

21. *The geometry and combinatorics of cographic toric face rings* (joint with S. Casalaina-Martin, J. L. Kass). Algebra Number Theory 7 (2013), no. 8, 1781–1815.

22. *Tropical Teichmüller and Siegel spaces* (joint with M. Chan, M. Melo). Algebraic and Combinatorial Aspects of Tropical Geometry (Proceedings of CIEM workshop on tropical geometry, Castro Urdiales, December 2011), Contemp. Math. 589 (2013), 45–85.

23. *Comparing perfect and 2nd Voronoi decompositions: the matroidal locus* (joint work with M. Melo). Math. Ann. 354 (2012), no. 4, 1521-1554.

24. *Restricted infinitesimal deformations of restricted simple Lie algebras.* J. Algebra Appl. 11 (2012), no. 5, 1250091, 19 pp.

25. *Fine compactified Jacobians* (joint work with M. Melo). Math. Nachr. 285 (2012), no. 8-9, 997–1031.

26. *On the birational geometry of the universal Picard variety* (joint work with G. Bini and C. Fontanari). Int. Math. Res. Not. IMRN 2012, no. 4, 740–780.

27. *On GIT quotients of Hilbert and Chow scheme of curves* (joint work with G. Bini, M. Melo). Electron. Res. Announc. Math. Sci. 19 (2012), 33–40.

28. *The Chow ring of the stack of cyclic covers of the projective line* (joint with D. Fulghesu). Ann. Inst. Fourier (Grenoble) 61 (2011), no. 6, 2249–2275.

29. *Torelli theorem for stable curves* (joint with L. Caporaso). J. Eur. Math. Soc. (JEMS) 13 (2011), no. 5, 1289–1329.

30. *On the tropical Torelli map* (joint work with S. Brannetti, M. Melo). Advances in Mathematics 226 (2011), 2546-2586.

31. *Torelli theorem for graphs and tropical curves* (joint work with L. Caporaso). Duke Mathematical Journal Vol.153, no. 1 (2010), 129–171.

32. *Simple finite group schemes and their infinitesimal deformations.* Rend. Sem. Mat. Univ. Politec. Torino Vol. 68 (2010), 171–182.

33. *A note on families of hyperelliptic curves* (joint work with S. Gorchinskiy). Archiv der Mathematik 92 (2009), 119-128.

34. *Deformations of the restricted Melikian Lie algebra.* Communications in Algebra 37 (2009), no. 7, 1850–1872.

35. *Infinitesimal deformations of simple restricted Lie algebras II.* Journal of Pure and Applied Algebra 213 (2009), 1702-1721.

36. *Cohomological support loci for Abel-Prym curves* (joint work with S. Casalaina-Martin and M. Lahoz). Le Matematiche LXIII (2008), 205–222.

37. *Infinitesimal deformations of simple restricted Lie algebras I.* Journal of Algebra 320 (2008), 4102–4131.

38. *Deformazioni di algebre di Lie semplici ristrette.* Matematica nella Società e nella Cultura 1 (2008), no. 2, 371–374.

39. *Picard group of moduli of hyperelliptic curves* (joint work with S. Gorchinskiy). Mathematische Zeitschrift 258 (2008), 319–331.

40. *Restricted simple Lie algebras and their infinitesimal deformations.* From Lie Algebras to Quantum Groups (Proceedings of the Conference "From Lie Algebras to Quantum groups", Coimbra, June 2006), Centro International de Matematica no. 28 (2006), 197–210.

41. *Families of n-gonal curves with maximal variation of moduli* (joint work with S. Gorchinskiy). Le Matematiche LXI (2006), 185-209.

42. *Ramification groups and Artin conductors of radical extensions of* $\mathbb{Q}$. Journal de Théorie des Nombres de Bordeaux 16 (2004), 779-816.

PREPRINTS

1. *On the Picard group scheme of the moduli stack of stable pointed curves* (joint with R. Fringuelli). Preprint arXiv:2005.06920.

EDITORIAL ACTIVITY

1. *Moduli of K-stable Varieties.* Editors: Codogni, Giulio, Dervan, Ruadhai, Viviani, Filippo. Springer INdAM Series, Volume 31. DOI: 10.1007/978-3-030-13158-6.

SUPERVISION OF GRADUTE STUDENTS AND POSTDOCS

Supervision of the following *PhD students* from the University of Roma Tre:

- Fabio Felici, PhD Thesis defended the 5th May 2014, Title of the PhD thesis: "GIT of Hilbert and Chow schemes of curves".
- Roberto Fringuelli, PhD Thesis defended the 16th June 2017, Title of the PhD thesis: "The Picard group of the universal moduli space of vector bundles on stable curves and the abelian Franchetta conjecture for abelian varieties".
- Michele Savarese, PhD Thesis defended the 29th April 2019, Title of the PhD thesis: "Moduli spaces of coherent sheaves on primitive multiple curves".

- Raffaele Carbone., PhD Thesis defended on the 19th March 2020, Title of the PhD thesis: "The Norm map on the compactified Jacobian, the Prym stack and spectral data for G-Higgs pairs".
- Davide Gori, PhD student (of Rome La Sapienza) at the first year.

Supervision of the following *PostDoc* fellows:

- Ethan Cotterill, PostDoc at the University of Coimbra, October 2011–March 2013.
- Giulio Codogni, PostDoc at the University of Roma Tre, February 2014–July 2017.
- Francesco Bastianelli, PostDoc at the University of Roma Tre, June 2014–June 2016.

INSTITUTIONAL RESPONSIBILITIES

- Organizer of the Geometry Seminar at the University of Roma Tre, 2009–2020.
  Webpage: http://ricerca.mat.uniroma3.it/users/geometria/seminarigeometria.html
- 2010–present: Member of the Faculty of the PhD program at the University of Roma Tre.

INVITED COURSES ON INTERNATIONAL ADVANCED SCHOOLS

1. Course on *Moduli Spaces of Curves and Abelian Varieties.* Research School Pragmatic 2015 on "Moduli of curves and line bundles", Catania (Italy), 22 June – 10 July 2015.
   Webpage: https://www.dmi.unict.it/pragmatic/docs/Pragmatic2015.html
2. Course on *Toroidal compactifications and tropicalizations of moduli spaces.* CIME-CIRM Course on "Combinatorial Algebraic Geometry", Levico Terme (Trento, Italy), 10–15 June 2013.
   Webpage: http://web.math.unifi.it/users/ottavian/cimecirmcag/cimecirmcag.html
3. Course on *The Torelli morphism and the Torelli theorem.* School "Curves and Jacobians: state of the art", Levico Terme (Trento, Italy), 13–16 February 2013.
   Webpage: http://www.science.unitn.it/cirm/Curves2013.html

CONFERENCES ORGANIZED

1. Conference *Algebraic Geometry in Roma Tre* (a conference on the occasion of Sandro Verra's 70(+2)th birthday), Roma Tre University, 14-17 June 2022.
   Webpage: http://ricerca.mat.uniroma3.it/users/moduli/verra70
2. AIM(=American Institute of Mathematics) Workshop: *Moduli problems beyond geometric invariant theory*, online workshop, 25-29 January 2021.
   Webpage: https://aimath.org/workshops/upcoming/newmethodmoduli
3. Conference *Geometry in Pairs*, Roma Tre University, 19-20 December 2019.
   Webpage: http://ricerca.matfis.uniroma3.it/AeneasConference2018/GeometryInPairs2019/index.html
4. Coordinator of the Algebraic Geometry Session at the *XXI Congresso dell'Unione Matematica Italiana*, University of Pavia, 2-9 September 2019.
   Webpage: http://umi.dm.unibo.it/congresso2019/programma/sezioni-speciali/s18-geometria-algebrica/s18-giovedi-5-settembre/
5. INdAM Workshop *Moduli of K-stable varieties*, INdAM (Roma), 10–14 July 2017.
   Webpage: http://ricerca.mat.uniroma3.it/users/codogni/moduliconference

6. *An induction day to Super-Geometry*, University of Roma Tre, 23 April 2014.
   Webpage: http://ricerca.mat.uniroma3.it/users/codogni/SuperDay.html
7. *Minicourses on Stability*, University of Coimbra, 10-12 April 2014.
   Webpage: http://www.mat.uc.pt/∼stab/index.html
8. Conference *Géométrie algébriques en liberté XVIII*. Coimbra (Portugal), 8–12 June 2010.
9. Conference *Géométrie algébriques en liberté XVII*. Lorentz center, Leiden (Netherlands), 8–12 June 2009.
   Webpage: http://www.lorentzcenter.nl/lc/web/2009/326/info.php3?wsid=326

TEACHING ACTIVITIES

I taught several courses starting from 2009 at the University of Roma Tre (for a complete list see http://ricerca.mat.uniroma3.it/users/viviani/didattica.html), among which the following PhD courses:

- 2009: Differential Topology, http://ricerca.mat.uniroma3.it/users/viviani/GE5.html
- 2010: Geometric invariant theory, http://ricerca.mat.uniroma3.it/users/viviani/GIT.html
- 2012: Toroidal compactifications of locally symmetric varieties,
  http://ricerca.mat.uniroma3.it/users/viviani/Toroidal.html
- 2013: Graph Theory, http://ricerca.mat.uniroma3.it/users/viviani/grafi.html
- 2014: Elements of Geometric invariant theory with applications to Moduli (joint with I. Morrison), http://ricerca.mat.uniroma3.it/users/viviani/GIT2014-15.html
- 2017: Selected topics on K3 surfaces, http://ricerca.mat.uniroma3.it/users/viviani/K3.html

CONFERENCE TALKS

1. *The Picard group of the universal moduli stack of principal bundles on pointed curves.* School on Mirror Symmetry and Moduli Spaces, Lisbon, 27 June-1 July 2022.
2. *On the Universal Jacobian: algebraic, tropical and logarithmic aspects.* Conference "Moduli spaces and logarithmic geometry", Mittag-Leffler Institute (Stockholm), 15-19 Novembre 2021.
3. *Slope inequalities for KSB-stable and K-stable families*, Conference "Riposte Armonie", Cetraro, 21-24 September 2021.
4. *On the Universal Jacobian: algebraic, tropical and logarithmic aspects.* Conference "Brill-Noether theory: geometric, tropical and singularity theory aspects", Humboldt University of Berlin, 5-7 November 2019.
5. *On the Universal Jacobian: algebraic, tropical and logarithmic aspects.* Workshop on Discrete geometry with a view on symplectic and tropical geometry, University of Cologne, 23-27 September 2019.
6. *On the cone of effective cycles on the symmetric products of curves.* "Basel-Dijon-EPFL birational geometry meeting", Lausanne, 3–4 May 2018.
7. *On the cone of effective cycles on the symmetric products of curves.* Workshop "Sheaves, curves, and moduli", Stavanger (Norway), 16–20 April 2018.
8. *On the cone of effective cycles on the symmetric products of curves.*Korean-Italian Meeting on Algebraic Geometry 2018, 8–12 January 2018.
9. *On the cone of effective cycles on the symmetric products of a curve.* Conference "31 Colóquio Brasileiro de Matemática", IMPA (Rio de Janiero), 30 July–5 August 2017.

10. *The cohomology of the Hilbert scheme and of the compactified Jacobians of a singular curve.* Conference "Algebraic Geometry and Representation Theory in Rome", Roma La Sapienza, 22 December 2016.

11. *The cohomology of the Hilbert scheme and of the compactified Jacobians of a singular curve.* Conference "Moduli and Birational geometry V", Jeju (South Korea), 12–16 December 2016.

12. *The cohomology of the Hilbert scheme and compactified Jacobians.* Workshop "Combinatorial Moduli Spaces", Fields Institute (Toronto), 5-9 December 2016.

13. *Macdonald formula for singular curves.* Workshop "Cycles on Moduli Spaces, Geometric Invariant Theory, and Dynamics", ICERM (Brown University, Providence), 1–5 August 2016.

14. *Macdonald formula for singular curves.* Conference "Geometry of Algebraic Varieties 2016", Levico Terme (Trento), 20–25 June 2016.

15. *Fourier-Mukai and autoduality for compactified Jacobians.* Conference "Classification of Projective Varieties", Levico Terme (Trento), 31 August – 4 September 2015.

16. *Fourier-Mukai and autoduality for compactified Jacobians.* AMS Summer Institute in Algebraic Geometry, University of Utah, Salt Lake City, 21 July 2015.

17. *Fourier-Mukai and autoduality for compactified Jacobians.* BC-Northeastern Algebraic Geometry Conference, Northeastern University (Boston), 25 April 2015.

18. *GIT of Hilbert schemes of curves.* Workshop "Birational geometry and stability of moduli stacks and spaces of curves". Vietnam Institute for Advanced Studies in Mathematics, Vietnam, 9 February – 1 March 2014.

19. *On the cone of Moriwaki divisors.* "Georgia Algebraic Geometry Symposium", Athens (Georgia, USA), 18–20 October 2013.

20. *Tropicalizing vs Compactifying the Torelli map.* Conference on "Tropical aspects in Geometry and Topology". MPIM, Bonn, 2–6 September 2013.

21. *Fourier-Mukai transform and autoduality for compactified Jacobians.* Conference "Moduli and Birational Geometry", Postech (Pohang, Korea), 12–16 August 2013.

22. *Autoduality and Fourier-Mukai for degenerations of Jacobians*, Colloquium GRIFGA, Strasbourg, 4–6 March 2013.

23. *Autoduality and Fourier-Mukai for degenarations of Jacobians.* Conference "15 years of Pragmatic", Catania, 17–19 September 2012.

24. *Autoduality and Fourier-Mukai transform for compactified Jacobians of singular curves.* School "Introduction to Geometric Langlands", Freiburg, 30 July–3 August 2012.

25. *Comparing toroidal compactifications of the moduli space of abelian varieties.* Workshop Tropical Geometry, ICMS (Edinburgh), 2–6 April 2012.

26. *On GIT quotients of Hilbert and Chow schemes of curves.* Workshop "Algebraic Geometry III to II", Roma Tor Vergata, 16–17 February 2012.

27. *Linear series on tropical curves.* Workshop Perspectives in Tropical Geometry 2011, Arolla (Switzerland), 18–21 July 2011.

28. *Tropical Teichmüller theory.* Workshop on Tropical and Toric Geometry, Trento, 12–17 September 2011.

29. *On cographic toric face rings.* I Latin American School of Algebraic Geometry and Applications (ELGA 2011), Cordoba (Argentina), 8–12 August 2011.

30. *GIT of Hilbert and Chow schemes of curves.* Workshop on Moduli and birational geometry, Gyeongju, South Korea, 11–15 July 2011.

31. *Cohomology of categories fibered in groupoids.* VIII Portuguese Category Theory, Coimbra, 17 May 2011.

32. *Tropical moduli spaces.* Bellairs workshop in Number Theory on Tropical and non-archimedean geometry, Bellairs Research Institute (Barbados), 6–13 May 2011.

33. *The Torelli Map: Compactification And Tropicalization.* I Meeting Coimbra-Salamanca Algebraic Geometry Seminar, Coimbra (Portugal), 29–30 January 2010.

34. *On the tropical Torelli map.* Workshop Tropical geometry in combinatorics and algebra. MSRI (Berkeley), 12–16 October 2009.

35. *Torelli theorem for stable curves.* School and Conference on Moduli. Humboldt University of Berlin, 21–28 August 2009.

36. *Deformations of restricted simple Lie algebras in positive characteristic.* XVIII Latin American Algebra Colloquium, Hotel Fonte Colina Verde, São Pedro, (SP, Brazil), 3–8 August 2009.

37. *Torelli theorem for stable curves.* Seminar at 27th Brazilian Mathematics Colloquium, IMPA (Rio de Janeiro), 27–31 July 2009.

38. *Torelli theorem for stable curves.* Seminar at the Conference "Géométrie algébriques et géométrie complexe", CIRM (Luminy), 12–16 January 2009.

39. *Torelli theorem for singular curves.* Seminar at the workshop de Investigadores Jóvenes 2008, Madrid, 26 September 2008.

40. *Abel-Prym curves and their cohomological properties.* Conference GAEL XVI, Madrid, 20–26 April 2008.

41. *On some cohomological properties of Abel-Prym curves.* Conference on Moduli Spaces, Bonn, 2–11 January 2008.

42. *Cohomological support loci for Abel-Prym curves.* North German Algebraic Geometry Seminar, Hannover 30 November 2007.

43. *Deformations of simple finite group schemes.* Conference "Non-commutative rings and Geometry" at Almeria (Spain), 18–22 September 2007.

44. *Deformations of restricted simple Lie algebras.* Conference "From Lie algebras to quantum groups" at Coimbra (Portugal), 28–30 June 2006.

45. *Stack and moduli space of hyperelliptic curves.* Meeting of Italian young algebraic geometers at Trieste, 26-29 May 2006.

46. *Moduli space of hyperelliptic curves.* Summer school "Number fields and Curves over finite fields" at Anogia (Crete), 23–29 July 2005.

47. *Hyperelliptic curves: moduli functor $\mathcal{H}_g$ vs moduli scheme H_g.* Conference GAEL XIII at CIRM (Luminy), 21–25 March 2005.

SEMINAR TALKS

1. *Tropicalization of the universal Jacobian: logarithmic and non-archimedian view points.* University of Porto, 6 January 2023.

2. *On the first steps of the minimal model program for the moduli space of stable pointed curves.* University of Augsburg, 23 May 2019.

3. *On the first steps of the minimal model program for the moduli space of stable pointed curves.*ETH, Zurich, 5 December 2018.
4. *On the cone of effective cycles on the symmetric products of a curve.* University of Bonn, 12 July 2018.
5. *On the first steps of the minimal model program for the moduli space of stable pointed curves.*University of Edinburgh, 28 June 2018.
6. *On the cone of effective cycles on the symmetric products of a curve.* Milano Politecnico, 26 January 2018.
7. *On the cone of effective cycles on the symmetric products of a curve.* Roma La Sapienza, 24 January 2018.
8. *The cohomology of the Hilbert schemes and of the compactified Jacobians of a singular curve.* ETH (Zurich), 17 March 2017.
9. *The cohomology of the Hilbert scheme and of the compactified Jacobians of a singular curve.*University of Porto, 27 January 2017.
10. *The singularities and birational geometry of the universal compactified Jacobian.* University of Genova, 3 February 2016.
11. *The singularities and birational geometry of the compactified universal Jacobian.* University of Pavia, 2 December 2014.
12. *Compactifying vs Tropicalizing the Torelli morphism.* MIT-Harvard joint seminar, 29 October 2013.
13. *Compactifying vs Tropicalizing the Torelli morphism.* Stony Brook University, 23 October 2013.
14. *On the birational geometry of the universal Jacobian.* Courant Institute of Mathematical Sciences, New York University, 22 October 2013.
15. *Fourier-Mukai transform and autoduality for compactified Jacobians.* Colóquio de Geometria e Aritmética, Rio de Janeiro, 30 August 2013.
16. *Autoduality and Fourier-Mukai for compactified Jacobians.* University of Hannover, 20 June 2013.
17. *Tropicalizing vs Compactifying the Torelli morphism.* University of Porto, 7 March 2013.
18. *GIT for Hilbert and Chow schemes of curves.* University of Pisa, 27 February 2013.
19. *GIT for polarized curves.* University of Torino, 31 January 2013.
20. *Autoduality and Fourier-Mukai transform for degenerations of Jacobians.* University of Bologna, 9 October 2012.
21. *Autoduality and Fourier-Mukai transform for compactified Jacobians of singular curves.* EPFL (Lausanne), 27 September 2012.
22. *Autoduality and Fourier-Mukai transform for compactified Jacobians of singular curves.* Université Montpellier 2, 25 June 2012.
23. *Tropical Teichmüller theory.* University of Coimbra, 26 October 2011.
24. *The Torelli map: compactification and tropicalization.* University of Ferrara, 22 September 2011.
25. *The Torelli map: compactification and tropicalization.* University of Texas at Austin, 25 August 2011.
26. *Birational geometry of the universal Jacobian.* IMPA (Rio de Janeiro), 17 August 2011.
27. *On the birational geometry of the universal Picard variety,* Seminar at Instituto Superiore Técnico of Lisbon, 29 April 2011.

28. *On the birational geometry of the universal Picard variety,* Seminar at University of Coimbra, 27 April 2011.

29. *On the birational geometry of the universal Picard variety,* Seminar at University of Roma Tre, 17 February 2011.

30. *On the birational geometry of the universal Picard variety,* Seminar at University of Cosenza, 13 December 2010.

31. *The tropical Torelli Map and its relations with the compactified Torelli map*, Seminar at University of Milano, 3 December 2010.

32. *The Torelli Map: Compactification And Tropicalization,* Seminar at University of Grenoble, 8 November 2010.

33. *The Torelli Map: Compactification And Tropicalization,* Seminar at University of Forth Collins (Colorado), 28 October 2010.

34. *Torelli theorem for stable curves*, Seminar at University of Roma Tre, 10 December 2009.

35. *Tropical moduli spaces*, Seminar at University of Coimbra, 30 September 2009.

36. *Torelli theorem for stable curves*, Seminar at Instituto Superiore Técnico of Lisbon, 15 September 2009.

37. *Torelli theorem for graphs and tropical curves*, Seminar at the Hümboldt University of Berlin, 20 January 2009.

38. *Torelli theorem for stable curves*, Seminar at the Hümboldt University of Berlin, 28 October 2008.

39. *Cohomological support loci for Abel-Prym curves*, Seminar at the Hümboldt University of Berlin, 13 November 2007.

40. *Deformations of simple finite group schemes*, Seminar at the Institute Mittag-Leffler of Stockholm, 12 June 2007.

41. *Simple finite group schemes and their deformations*, Seminar at the University of Rome II, 18/21 May 2007.

42. *The Picard group of hyperelliptic stack and some applications*, Seminar at the Hümboldt University of Berlin, 30 January 2007.

43. *On the Picard group of the stack of hyperelliptic curves*, Seminar at the Mittag-Leffler Institute of Stockholm, 18 January 2007.

44. *Families of hyperelliptic curves*, University of Rome III, 21 April 2005.

PARTICIPATION in CONFERENCES and SCHOOLS

1. Winter Meeting in Algebra and Geometry, Roma Tre University, 19-21 December 2022.

2. Conference *Hyperkähler varieties and related topics*, Roma La Sapienza, 12-16 September 2022.

3. Workshop *Combinatorial Algebraic Geometry*, University of Bath, 1-5 August 2022.

4. School on *Mirror Symmetry and Moduli Spaces*, Lisbon, 27 June-1 July 2022.

5. Conference *Algebraic Geometry in Roma Tre* (a conference on the occasion of Sandro Verra's 70(+2)th birthday), Roma Tre University, 14-17 June 2022.

6. Workshop in Arithmetic Geometry, Roma Tre University, 28 February-4 March 2022.

7. Workshop *Moduli spaces and logarithmic geometry*, Mittag-Leffler Institute (Stockholm), 15-19 Novembre 2021.

8. Conference *Riposte Armonie*, Cetraro, 21-24 September 2021.
9. AIM Workshop *Moduli problems beyond geometric invariant theory*, online workshop, 25-29 January 2020.
10. Conference *Geometry in Pairs*, Roma Tre University, 19-20 December 2019.
11. Conference *Brill-Noether theory: geometric, tropical and singularity theory aspects*, Humboldt University of Berlin, 5-7 November 2019.
12. Conference *Algebraic transformation groups: the mathematical legacy of Domingo Luna*, University of Roma La Sapienza, 28-30 October 2019.
13. Workshop on *Discrete geometry with a view on symplectic and tropical geometry*, University of Cologne, 23-27 September 2019.
14. *XXI Congresso dell'Unione Matematica Italiana*, University of Pavia, 2-9 September 2019.
15. Conference *Calabi-Yau and geometry*, University of Roma La Sapienza, 29 May–1 June 2019.
16. Aeneas Conference: *Migrating Algebraic Geometry, Christmas Conference*, Roma Tre University, 20–21 December 2018.
17. Conference *Tropical Geometry and Moduli Spaces*, Cabo Frio (Rio de Janeiro), 13–17 August 2018.
18. Indam Wokshop *Birational geometry and Moduli Spaces*, INdAM (Roma), 11-15 June 2018.
19. Conference *Basel-Dijon-EPFL birational geometry meeting*, Lausanne, 3–4 May 2018.
20. Workshop *Sheaves, curves, and moduli*, Stavanger (Norway), 16–20 April 2018.
21. Conference *31 Colóquio Brasileiro de Matemática*, IMPA (Rio de Janiero), 30 July–5 August 2017.
22. Workshop *Moduli of K-stable varieties,*INdAM (Roma), 10–14 Luglio 2017.
23. Conference *Modern algebra and classical geometry (Together with Edoardo Sernesi)*, Trento, 21–24 Giugno 2017.
24. Workshop *Foundations of tropical schemes*, AIM (San José, California, USA), 10–14 April 2017.
25. Workshop *Stability and moduli spaces*, AIM (San José, California, USA), 9–13 January 2017.
26. Conference *Algebraic Geometry and Representation Theory in Rome*, Roma La Sapienza, 22 December 2016.
27. Conference *Moduli and Birational geometry V*, Jeju (South Korea), 12–16 December 2016.
28. Workshop *Combinatorial Moduli Spaces*, Fields Institute (Toronto), 5–9 December 2016.
29. Workshop *Cycles on Moduli Spaces, Geometric Invariant Theory, and Dynamics*, ICERM (Brown University, Providence), 1–5 August 2016.
30. Conference *Geometry of Algebraic Varieties 2016*, Levico Terme, 20–25 June 2016.
31. Workshop *Algebraic, Tropical, and Nonarchimedean Analytic Geometry of Moduli Spaces*, CMO-BIRS, Oaxaca (Mexico), 1–6 May 2016.
32. Workshop *Birational Geometry of surfaces*, Roma Tor Vergata, 11–15 January 2016.
33. Conference *Algebraic Geometry and Representation Theory*, Rome, 21–22 December, 2015.
34. XX Congresso dell'Unione Matematica Italiana, Siena, 7–12 September 2015.
35. Conference *Classification of Projective Varieties*, Levico Terme (Trento), 31 August – 4 September 2015.

36. AMS Summer Institute in Algebraic Geometry, University of Utah, Salt Lake City, 12 – 24 July 2015.

37. Research School Pragmatic 2015 on *Moduli of curves and line bundles*, Catania, 22 June – 10 July 2015.

    Lectures: Spin Curves and Mirror Symmetry (by prof. A. Chiodo); Moduli Spaces of Curves and Abelian Varieties (by prof. F. Viviani).

38. AMS-EMS-SPM International Meeting, Porto, 10-13 June 2015.

    Special sessions attended: Enumerative and Combinatorial Methods in Moduli Theory; Higgs Bundles and Character Varieties; Vector Bundles on Projective Varieties.

39. Woskshop *Supermoduli*. Simons Center, Stony Brook, 18–22 May 2015.

    Lectures: Supergeometry and Super Riemann Surfaces (by prof. Ron Donagi); Methods from Algebraic Geometry (by prof. P. Deligne); Holomorphic Methods In Low Genus (by prof. E. Witten); Basic Introduction to superstring perturbation theory (by prof. Eric D?Hoker and prof. D. H. Phong).

40. Workshop *Tropical geometry in the tropics.* IMPA, Rio de Janeiro, 11–15 May 2015.

41. Workshop *Modular Forms and Geometry of Modular Varieties.* IMPA, Rio de Janeiro, 4–8 May 2015.

42. Spring school *Classical and p-adic Hodge theories*. Centre de Mathematiques Henri Lebesgue, Université de Rennes. 19-23 May 2014.

    Lectures: The work of Schmid (by prof. P. Eyssidieux); Decomposition theorem for direct images (by prof. L. Migliorini); Hyperbolicity of moduli spaces (by prof. S. Kebekus); Filtered (ϕ, N)-modules (by prof. O. Brinon); Ramification of cristalline representations (by prof. S. Hattori); Projective varieties over the rationals with good reduction (by prof. V. Abrashkin).

43. Spring school on the *fundamental group scheme and related topics*. Université de Nice, 5-7 May 2014.

44. *An induction day to Super-Geometry.* University of Roma Tre, 23 April 2014.

45. *Minicourses on Stability.* University of Coimbra, 10–12 April 2014.

    Lectures: Bridgeland stability and birational geometry (by prof. A. Bayer); K-stability of projective varieties (by prof. J. Stoppa).

46. Workshop *Specialization of Linear Series for Algebraic and Tropical Curves.* 30 March - 4 April 2014, BIRS, Banff (Alberta, Canada).

47. Workshop *Birational geometry and stability of moduli stacks and spaces of curves.* Vietnam Institute for Advanced Studies in Mathematics, Vietnam, 9 February – 1 March 2014.

48. Workshop *Curves and Equations.* Levico Terme (Trento, Italy), 5–8 February 2014.

    Lectures: Linear orbits of plane curves (by prof. P. Aluffi); The universal Kummer variety (by prof. R. Salvati-Manni); Constructive algebraic geometry and random curves (by prof. F.-O. Schreyer).

49. Workshop on *Severi Varieties and Hyperkähler Manifolds.* University of Roma Tor Vergata, 4–8 November 2013.

50. Conference *AGNES 2013*, Boston College (Boston), 25–27 October 2013.

51. *Georgia Algebraic Geometry Symposium.* Athens (Georgia, USA), 18–20 October 2013.

52. Conference *Classification of Algebraic Varieties and related topics.* Cetraro (Italy), 8–15 September 2013.

53. Conference on *Tropical aspects in Geometry and Topology.* MPIM, Bonn, 2–6 September 2013.

54. Workshop *Jornadas em Geometria Algébrica.* UFF, Rio de Janeiro, 22-23 August 2013.

55. Conference on *Moduli and Birational Geometry.* Postech (Pohang, Korea), 12–16 August 2013.

56. Conference *Geometria Algebrica nella Capitale.* Roma, 4–6 July 2013.

57. IST Courses on Algebraic Geometry on *Geometry of Higgs Bundles.* Porto, 25–28 June 2013.

    Lectures by prof. S. Bradlow and prof. O. Garcia-Prada.

58. CIME-CIRM Course on *Combinatorial Algebraic Geometry.* Levico Terme (Trento, Italy), 10–15 June 2013.

    Lectures: Koszul algebras, Koszul homology and syzygies (by prof. A. Conca); Linear Toric fibrations and Cayley politopes (by prof. S. di Rocco); Infinite-dimensional systems of polynomial equations with symmetry (by prof. I. Draisma); Maximum Likelihood Geometry (by prof. B. Sturmfels); Toroidal compactifications and tropicalizations of moduli spaces (by prof. F. Viviani).

59. Advanced School *Compactifying Moduli Spaces.* CRM, Barcelona, 27–31 May 2013.

    Lectures: Moduli of weighted stable hyperplane arrangements, with applications (by prof. V. Alexeev); Compact moduli spaces of surfaces and exceptional vector bundles (by prof. P. Hacking); Perspectives on the compactification problem for moduli spaces (by prof. R. Laza); Moduli of rational curves (by prof. M. Lehn); The moduli space of stable quotients (by prof. D. Oprea).

60. Colloquium GRIFGA, Strasbourg, 4–6 March 2013.

61. School *Curves and Jacobians: state of the art.* Levico Terme (Trento, Italy), 13–16 February 2013.

    Lectures: Equations and syzygies of projective curves (by prof. M. Aprodu); Riemann surfaces, ribbon graphs and combinatorial classes (by prof. G. Mondello) Derived categories and the geometry of curves and their Jacobians (by prof. P. Stellari); The Torelli morphism and the Torelli theorem (by prof. F. Viviani).

62. Winter School *Geometry of Sheaves in Low Dimensions.* Centro Stefano Franceschini, Ascona, 21–25 January 2013

    Lectures: Cohomology of the moduli space of Higgs bundles (by prof. T. Hausel); Higgs bundles, stable pairs, and wall-crossing (by prof. E. Diaconescu); Counting on Calabi-Yau threefolds (by prof. R. Pandharipande); Moduli spaces of stable pairs on surfaces (by prof. R. Thomas); Introduction to bundles and sheaves in low dimensions (by prof. A. Szenes).

63. *Workshop MACK 5 in Rome.* Roma, 5–8 November 2012.

    Lectures: K ahler-Einstein metrics with cone singularities (by prof. M. Paun); Constant scalar curvature metrics on toric manifolds (by prof. J. Ross); Examples of extremal metrics and stability (by prof. G. Szekelyhidi).

64. Conference *15 years of Pragmatic.* Catania, 17–19 September 2012.

65. School *Introduction to Geometric Langlands.* Freiburg, 30 July – 3 August 2012.

    Lectures: Hecke operators in Geometric Langlands (by prof. D. Nadler); Geometric Langlands Duality and its Classical Limit (by prof. T. Pantev).

66. School *GÉOMÉTRIE ALGÉBRIQUES EN LIBERTÉ XVIII.* Grenoble, 18–22 June 2012.

    Lectures: Curves, abelian varieties and the Schottky problem (by prof. S. Grushevsky); Moduli of K3 surfaces and irreducible symplectic manifolds (by prof. K. Hulek); Introduction to derived algebraic geometry (by prof. B. T oen).

67. Workshop *Tropical Geometry.* ICMS (Edinburgh), 2–6 April 2012.

68. Workshop *Algebraic Geometry III to II.* Roma Tor Vergata, 16–17 February 2012.

69. Workshop *Algebraic Geometry: 2 days in Rome 2.* Roma Tor Vergata, 2–3 February 2012.

70. *Perspectives in Tropical Geometry 2011.* Arolla (Switzerland), 18–21 July 2011.

71. School and Workshop on *Tropical and toric geometry.* Trento, 12–17 September 2011.

    Lectures: Toric geometry (by prof. S. Di Rocco); Tropical geometry (prof. G. MIkhalkin).

72. VI first courses on algebraic geometry *Topics in moduli theory.* Instituto Superior Técnico, Lisbon, 5–8 September 2011.

    Lectures: Geometry of moduli of higher spin curves (by prof. G. Farkas); Stable canonically polarized varieties (by prof. S. Kovács).

73. *I Latin American School of Algebraic Geometry and Applications* (ELGA 2011). Cordoba (Argentina), 8–12 August 2011.

74. Workshop on *Moduli and birational geometry.* Gyeongju, South Korea, 11–15 July 2011.

75. Summer school PCMI 2011 *Moduli Spaces of Riemann Surfaces.* Park City, Utah, 3–8 July and 18–2 July 2011.

    Lectures: Mapping class group and Torelli groups (by prof. Y. Minsky and A. Putman); The Mumford conjecture, Madsen-Weiss and homological stability for mapping class groups of surfaces (by prof. N. Wahl); Weil-Petersson geometry and intersection numbers on moduli spaces (by prof. S. Wolpert); Tautological algebras of moduli spaces (by prof. C. Faber); Teichmüller theory and moduli spaces of Riemann surfaces (by prof. M. Möller).

76. Summer school *Moduli of curves and Gromov-Witten theory.* Institut Fourier, Grenoble, 27 June – 01 July 2011.

    Lectures: Introduction to Gromow-Witten theory and the crepant transformation conjecture (by prof. Y.P. Lee); Towards global mirror symmetry (by prof. Y. Ruan and A. Chiodo); Extremal Laurent polynomials (by prof. A. Corti); Introduction to Donaldson-Thomas theory (by prof. D. Maulik); Cosection localized virtual cycle (by prof. J. Li).

77. Workshop on *Birational geometry.* University of Strasbourg, 13–15 June 2011.

78. *CLAUDIO 70*, a conference in honour of Claudio Procesi. Roma La Sapienza, 9–11 June 2011.

79. *VIII Portuguese Category Seminar.* Coimbra, May 17, 2011

80. The *Bellairs workshop in Number Theory* on *TROPICAL AND NON-ARCHIMEDEAN GEOMETRY.* Bellairs Research Institute (Barbados), 6–13 May 2011.

    Lectures by prof. Matt Baker.

81. Workshop on *Classical Algebraic Geometry.* INDAM (Rome), 9–11 February 2011.

82. Workshop *Courbes rationnelles sur les variétés singuliéres et/ou quasi-projectives.* CIRM (Luminy, Marseille), 22–26 November 2010.

83. Conference *COMPACT MODULI AND VECTOR BUNDLES.* University of Georgia (Athens, Georgia), 21–24 October 2010.

84. School *Intersection theory on the moduli space of curves.* Humboldt University of Berlin, 13–15 October 2010.

    Lectures: The tautological ring of the moduli space of curves (by prof. C. Faber); Koszul cycles on the moduli space of curves (by prof. G. Farkas); Stable quotients and the moduli space of curves of compact type (by prof. R. Pandharipande).

85. II Meeting *COIMBRA SALAMANCA ALGEBRAIC GEOMETRY SEMINAR (II Meeting).* Salamanca (Spain), 1–2 October 2010.

86. Conference *SEMINAL INTERACTIONS BETWEEN MATHEMATICS AND PHYSICS.* Accademia Nazionale dei Lincei (Roma), 22-25 September 2010.

87. Conference *PERSPECTIVE ON ALGEBRAIC VARIETIES.* Levico Terme (Trento), 6–1 September 2010.

88. Workshop DEFORMATION THEORY II. La Sapienza (Roma), 30 August – 3 September 2010.

    Lectures: Introduction to deformation theory (by prof. B. Fantechi); Deformation theory of sheaves and applications (by prof. M. Lieblich); Derived deformation functors (by prof. J.P. Pridham); Deformations of fibrations (by prof. E. Sernesi).

89. School on *MINIMAL MODEL PROGRAM AND SHOKUROV's ACC CONJECTURE.* CIRM (Trento), 5–9 July 2010.

    Lectures: Minimal model program (by prof. S. Boucksom); Shokurov's ACC conjecture (by prof. T. de Fernex).

90. Conference *Géométrie Algébrique Complexe* Institut Henri Poincaré (Paris), 28 June – 2 July 2010.

91. Conference *VECTOR BUNDLE ON ALGEBRAIC CURVES (VBAC10).* IST (Lisbon), 14–16 June 2010.

92. Conference *GÉOMÉTRIE ALGÉBRIQUES EN LIBERTÉ XVIII.* Coimbra (Portugal), 8–12 June 2010.

    Lectures: Rational Curves on Algebraic Varieties (by prof. O. Debarre); Convex Algebraic Geometry (by prof. B. Sturmfels); Cycle Classes on Abelian Varieties (by prof. G. van der Geer).

93. Workshop *Giornate di Geometria Algebrica ed Argomenti Correlati.* Gargnano, 25-29 May 2010.

94. Workshop *Commutative Ring Theory Days.* Roma Tre, 20–21 May 2010.

95. Workshop on *ORBIFOLD AND MODULI SPACES IN TROPICAL GEOMETRY.* Les Diablerets (Geneve, Switzerland), 15–19 March 2010.

96. *IST Courses on Algebraic Geometry V.* IST (Lisbon), 1–5 February 2010.

    Lectures: Compactifications of Jacobians (by prof. L. Caporaso and E. Esteves).

97. I Meeting *COIMBRA SALAMANCA ALGEBRAIC GEOMETRY SEMINAR (I Meeting).* Coimbra (Portugal), 29–30 January 2010.

98. Workshop *MODULI SPACES IN ALGEBRAIC GEOMETRY.* Oberwolfach (Germany), 11–15 January 2010.

99. Workshop on *Algebraic Geometry.* Madrid, 17–19 December 2009.

100. Workshop *TROPICAL GEOMETRY IN COMBINATORICS AND ALGEBRA.* MSRI (Berkeley), 12–16 October 2009.

101. *IST Courses on Algebraic Geometry IV.* IST (Lisbon), 7–10 September 2009.

     Lectures: Fourier-Mukai and BGG transforms (by M. Popa); Generic vanishing and continous global generation on irregular varieties (by G. Pareschi).

102. School and Workshop on *HODGE THEORY AND ALGEBRAIC GEOMETRY.* CIRM (Trento), 31 August – 4 September 2009.

     Lectures by prof. E. Looijenga and C. Voisin.

103. School and Conference on *MODULI.* Humboldt University of Berlin, 21–28 August 2009.

104. Conference *COMMUTATIVE ALGEBRA AND ITS CONNECTION TO GEOMETRY* (organized by PASI), Olinda (Recife, Brazil), 10–14 August 2009.

105. *XVIII Latin American Algebra Colloquium*. Hotel Fonte Colina Verde, São Pedro, (SP, Brazil), 3–8 August 2009.

    Mini courses: Cluster algebras and cluster categories (by prof. R. Schiffler); Quantum groups and Hopf algebras (by prof. G. Andrés Garca); An introduction to central simple algebras and the Brauer group (by prof. E. Tengan).

106. *27th Brazilian Mathematics Colloquium*. IMPA (Rio de Janeiro), 27–31 July 2009.

    Mini courses attended: Algebraic stacks and moduli of vector bundles (by prof. F. Neumann); An invitation to web geometry (by prof. J. Vitório Pereira and L. Pirio); Intersection homology (by prof. J.-P. Brasselet).

107. *Geometry Summer School*. I.S.T. (Lisbon), 13 - 17 July 2009.

    Lectures: Toric K ahler-Sasaki geometry (by prof. M. Abreu); Curves on algebraic varieties (by prof. J. Kollár); Integrals on moduli spaces of bundles and Grassmannian TQFTs (by prof. A. Marian); Symplectomorphims of the plane and curve counts (by prof. R. Pandharipande); Symplectic categories (by prof. A. Weinstein).

108. Conference *VECTOR BUNDLE ON ALGEBRAIC CURVES (VBAC09)*. Freie University of Berlin, 15–19 June 2009.

109. Conference *GÉOMÉTRIE ALGÉBRIQUES EN LIBERTÉ XVII*. Lorentz center, Leiden (Netherlands), 8–12 June 2009.

    Lectures: Intersection theory on moduli spaces (by prof. G. Farkas); Higgs bundles and families of special varieties (by prof. S. M uller-Stach); Real solutions to equations from geometry (by prof. F. Sottile).

110. School on *DERIVED ALGEBRAIC GEOMETRY*. University of Salamanca, 1–5 June 2009.

    Lectures: Applications of Derived Algebraic Geometry to Homotopy Theory (by prof. C. Barwick); The derived moduli stack of (semi)stable sheaves (by prof. I. Ciocan-Fontanine); Mirror symmetry and the derived moduli space of quantum A-branes (by prof. T. Pantev); Introduction to derived algebraic geometry (by prof. T. Sch urg).

111. Leopoldina-Symposium in *Algebraic and Arithmetic Algebraic Geometry*. Centro Stefano Franscini, Monte-Verit, Ascona (Switzerland), 10–15 May 2009.

    Lectures: Periods (by prof. M. Kontsevich, H. Esnault, E. Viehweg); André-Oort Conjecture (by prof. G. W ustholz, B. Edixhoven, A. Yafaev, B. Klinger); Serre's Modularity Conjecture (by prof. C. Khare, J. P. Wintenberger); Hyperbolic and Arithmetic Geometry (by prof. J. Kramer, J. Jorgenson).

112. *Third North German Algebraic Geometry Seminar*. University of Hamburg, 23–24 April 2009.

113. Conference *COMBINATORIAL ENUMERATIVE GEOMETRY*, MSRI (Berkeley), 23–27 March 2009.

114. Conference *MODERN MODULI THEORY*, MSRI (Berkeley), 23–27 February 2009.

115. Conference *GÉOMÉTRIE ALGÉBRIQUES ET GÉOMÉTRIE COMPLEX*, CIRM (Luminy), 12–16 January 2009.

    Lectures by prof. T. Coates, A. Ducros. T. de Fernex, B. Fu, D. Huybrecths.

116. Workshop on *GEOMETRY OF PROJECTIVE VARIETIES*, Rome, 30 September – 04 October 2008.

    Lectures by prof. G. Mikhalkin, R. Miranda, J. V. Pereira.

117. Workshop de *Investigadores Jóvenes 2008*, Madrid, 24–26 September 2008.

118. Conference *AFFINE FLAG MANIFOLDS AND PRINCIPAL BUNDLES*, Freie University of Berlin, 8–12 September 2008.

119. School on *ALGEBRAIC STACKS*, Trento, 1–6 September 2008.

Lectures by prof. B. Fantechi and A. Kresch.

120. Workshop on *SYMPLECTIC FIELD THEORY*, Humboldt University of Berlin, 19–25 July 2008.

Lectures by prof. A. Givental.

121. Workshop on *ASPECTS OF MODULI*, De Giorgi Center (Pisa), 23–28 June 2008.

122. Summer School of the International research training group *ARITHMETIC AND GEOMETRY*, Alpbach (Austria), 15–20 June 2008.

Lectures: Tropical methods in diophantine geometry (prof. W. Gubler), Geometry of the moduli stacks of pointed curves and applications to the geometry of numbers (prof. G. Freixas i Montplet), Cycles, regulators and cohomology (prof. S. Muller-Stach).

123. *Second North German Algebraic Geometry Seminar*. Humboldt University of Berlin, 15–16 May 2008.

124. Conference *GÉOMÉTRIE ALGÉBRIQUES EN LIBERTÉ XVI*. Madrid, 20–26 April 2008.

Lectures: Differential equations and hyperbolicity of algebraic varieties (by prof. J. P. Demailly), K3 surfaces: Cycles, Chow groups, and derived categories (by prof. D Huybrecths), Gerbes and Essential Dimension (by prof. A. Vistoli)

125. Summer School on *MODULI SPACES OF ABELIAN VARIETIES AND COMPACTIFICATIONS*. Mainz, 1–4 April 2008.

Lectures: Introduction to Toric Geometry (prof. S. Boissiere), Compactifications of Moduli Spaces (prof. G. van der Geer), Moduli Spaces of Abelian Varieties (prof. S. Grushevsky).

126. Spring School on *HOLOMORPHIC SYMPLECTIC MANIFOLDS AND DERIVED CATEGORIES*. Gargnano, 25–30 March 2008.

Lectures: Irreducible Holomorphic Symplectic Manifolds (prof. A. Beauville, prof. K. O'Grady), Derived Categories (prof. T. Bridgeland, prof. D. Huybrechts).

127. International School on *MODULI SPACES IN GEOMETRY, TOPOLOGY AND PHIYSICS*. Castro Urdiales, 25–29 February 2008.

Lectures: Higgs Bundles (prof. P. Gothen), Derived categories (prof. A. King), A Hitchin-Kobayashi Correspondence for Higgs Bundles (prof. I. Mundet i Riera), Geometric Invariant Theory and Moduli Spaces (prof. A. Schmitt).

128. Workshop on *CONSTRUCTIVE GALOIS THEORY*. Oberflockenbach, 10–14 February 2008.

Lectures: Differential Galois Theory (prof. T. Dyckerhoff), Noether problem (prof. G. Kemper), Patching (prof. J. Hartmann).

I gave a lecture on *Tannakian categories*.

129. Winter school and Conference on *MODULI SPACES*, Bonn, 2–11 January 2008.

Lectures: Hilbert uniformization of Riemann surfaces (prof. C.-F. Bodigheimer), Intersection Theory of moduli spaces (prof. C. Faber), Virtual techniques (prof. B. Fantechi), Deformation and rigidity in commutative and non-commutative geometry (prof. Y. Manin), Moduli spaces in Topology (prof. U. Tillmann).

130. Workshop on *DEFORMATION THEORY IN ALGEBRAIC AND DIFFERENTIAL GEOMETRY*. Berlin, 13–18 December 2007.

131. *First North German Algebraic Geometry Seminar*, Hannover, 29–30 November 2007.

132. Conference *NON-COMMUTATIVE RINGS AND GEOMETRY*, Almeria (Spain), 18–22 September 2007.

133. Summer school *ARITHMETIC GEOMETRY*, Cetraro (Italy), 10 – 15 September 2007.

Lectures: Diophantine approximation and algebraization of formal schemes (prof. J.-B. Bost), Rationally connected varieties (prof. J.-L. Colliot-Thélène) Rational points on algebraic varieties (prof. Sir P. Swinnerton-Dyer), Diophantine approximation and Nevalinna theory (prof. P. Vojta).

134. Summer School of the International research training group *ARITHMETIC AND GEOMETRY*, Alpbach (Austria), 2–7 September 2007.

Lectures: On the Sato-Tate conjectures (prof. H. Carayol), Tropical Geometry (prof. A. Gathmann), Height bounds in diophantine geometry (prof. P. Habbeger).

135. School of research *Pragmatic 2007: FOURIER-MUKAI TRANSFORMS, GENERIC VANISHING AND HYPERBOLICITY*, University of Catania, 9–28 July 2007.

Lectures by prof. G. Pareschi and prof. M. Popa.

136. Grenoble summer school *GEOMETRY OF COMPLEX PROJECTIVE VARIETIES AND THE MINIMAL MODEL PROGRAM*, Grenoble, 18 June – 6 July.

Main lectures: Introductory course on linear series and multiplier ideals (prof. R. Lazarsfeld), Introductory course on Hörmander's L^2 methods (prof. J.P. Demailly), Singularities of pairs (prof. M. Mella), Bend and Break (prof. O. Debarre), Introduction to the Minimal Model Program (prof. A. Corti), Extremal contractions (prof. J. Wisniewski), Finite generation of the canonical ring (prof. J. McKernan).

137. Conference *ALGEBRAIC GEOMETRY IN HIGHER DIMENSIONS*, Levico Terme (Trento), 3–9 June 2007.

138. Doctoral school *PROJECTIVE AND BIRATIONAL GEOMETRY OF ALGEBRAIC VARIETIES*, Gargnano (Italy), 10–14 April 2007.

Lectures: Embedded varieties and Fano fibrations (prof. P. Ionescu), Minimal model program (prof. M. Mella), Grassmanians (prof. G. Ottaviani).

139. Conference *TOPOLOGY OF COMPLEX ALGEBRAIC VARIETIES*, Alghero, 19–23 September 2006.

140. Clay mathematical institute summer school *ARITHMETIC GEOMETRY*, Gottingen, 17 July–11 August 2006.

Main lectures: Arithmetic of curves (prof. H. Darmon), Arithmetic of surfaces (prof. B. Hasset, A. Kresch, D. Harari), Arithmetic of higher dimensional algebraic varieties (prof. Y. Tschinkel, J. Starr, D. Abramovich), Arithmetic of abelian varieties (prof. A. Oort, C.L. Chai, W. Messing, Y. Manin, F. Bogomolov, E. Ullmo).

141. Conference *FROM LIE ALGEBRAS TO QUANTUM GROUPS*, Coimbra, 28–30 June 2006.

142. School and Conference on *RESOLUTION OF SINGULARITIES*, ICTP Trieste, 12–27 June 2006.

Main Lectures: Introduction to Singularity theory (prof. Le Dung Trang), Basics of Commutative Algebra (prof. J. Herzog), Introduction to Valuation theory (prof. B. Teissier), Minimal Models and classification of higher dimensional varieties (prof. A. Corti), Orbifold Riemann-Roch (prof. M. Reid), Resolution of Singularities (prof. H. Hauser), Monomialization and Toroidalization (prof. S.D. Cutkovsky), Factorization of Birational maps (prof. J. Wlodarczyk), Resolution of Singularities in positive characteristic (prof. H. Hironaka).

143. Meeting *ITALIAN YOUNG ALGEBRAIC GEOMETERS*, Trieste, 26–29 May 2006.

144. Conference *BIRATIONAL GEOMETRY OF VARIETIES*, Pisa, 5–7 May 2006.

145. Summer school on *NUMBER FIELDS AND CURVES OVER FINITE FIELDS*, Anogia Academic Village (Crete), 23–29 July 2005.

Lectures: Arakelov divisors (prof. R. Schoof), Curves over finite fields and modular forms (prof. G. Van der Geer), Asymptotic theory of number fields (prof. M. Tsfasman), Arakelov theory (prof. R. de Jong).

146. Oberwolfach-seminar on *FINITE GROUP SCHEMES AND p-DIVISIBLE GROUPS*, Oberwolfach, 15–21 May 2005.

    Lectures by prof. B. Conrad, prof. R. Schoof and prof. F. Andreatta.

147. Conference *GÉOMÉTRIE ALGÉBRIQUES EN LIBERTÉ XIII*, CIRM Luminy (Marseille), 21–25 March 2005.

    Lectures: Abelian varieties over finite fields (by prof. F. Oort), Tropical algebraic geometry (by prof. I. Itenberg), Geometric aspect of valuation theory (by prof. B. Teissier).

148. Colloque *Semaine Derivee: LES CATËGORIES DERIVÉES ET LEURS APPLICATIONS*, Institute des Mathematiques de Jussieu, Paris, 17–25 January 2005.

149. School of research *Pragmatic 2004: HYPERBOLICITY OF COMPLEX VARIETIES*, University of Catania, 25 August–14 September 2004.

    Lectures: Introduction to the theory of algebraic and analytic hyperbolicity (prof. O. Debarre), Arithmetic hyperbolicity and Moduli of curves (prof. L. Caporaso).

150. Summer school on *MOTIVES, K-THEORY AND ARITHMETICAL GEOMETRY*, Sestri Levante (Genova), 28 June–2 July 2004.

151. School on *COMMUTATIVE ALGEBRA and interactions with algebraic geometry and combinatorics*, ICTP Trieste, 24 May–11 June 2004.

    Main Lectures: Finite free resolution of modules (prof. J. Herzog), Singularity theory (prof. G.-M. Greul), Local cohomology (prof. P. Schenzel), Characteristic p method and tight closure (prof. A. K. Singh), Combinatorial commutative algebra (prof. E. Miller), Cohomology rings of finite groups (prof. D.J. Benson),

152. *Conférence éducative sur l' HYPERBOLICITÉ et L' ARITHMETIQUES* (organizers: prof. A. Chambert-Loir and prof. C.Gasbarri), CIRM Luminy (Marseille), 5–9 April 2004.

153. *Advanced school in BASIC ALGEBRAIC GEOMETRY*, ICTP Trieste, 7–18 July 2003.

    Lectures: Grothendieck topologies and Descent (prof. A. Vistoli), Construction of Hilb and Quot schemes (prof. N. Nitsure), Existence theorems in formal geometry (prof. L. Illusie), Local properties of Hilbert schemes (prof. L. Gottsche), Picard scheme (prof. S. L. Kleiman).

154. Clay mathematical institute summer school on *HARMONIC ANALYSIS, TRACE FORMULA AND SHIMURA VARIETIES*, University of Toronto, 2–27 June 2003.

    Main Lectures: Introduction to the Trace Formula (prof. J. Arthur), Introduction to Shimura Varieties (prof. J. Milne), Harmonic Analysis on Reductive Groups and Lie Algebras (prof. R. Kottwitz).

155. Oberwolfach-seminar *EXPLICIT ALGEBRAIC NUMBER THEORY*, Oberwolfach, 10–16 November 2002.

    Lectures by prof. Hendrik Lenstra and prof. Peter Stevenhagen.

156. School and conference on *INTERSECTION THEORY AND MODULI*, ICTP Trieste, 9–27 September 2002.

    Main Lectures: Introduction to algebraic stacks (prof. A Vistoli), Introduction to Gromov-Witten invariants (prof. A. Bertram), Cohomology and Intersection of algebraic stacks (prof. K. Berhand), Orbifold cohomology and quantum cohomology of Orbifold (prof. D. Abramovich),

157. *Short courses on NUMBER THEORY*, King's college of London, 2–6 September 2002.

    Lectures: Iwasawa theory (prof. D. Burns), Modular forms (prof. I. Fesenko), Local fields (prof. K. Buzzard).

158. École d' été sur la *CONJECTURE DE BIRCH et SWINNERTON-DYER*, Institute de Mathématiques de Jussieu (Paris), 4–12 July 2002.

159. Summer school *CIRM* of Perugia, University of Perugia, August 2001.

    Lectures: Algebraic geometry (prof. E. Arrondo), Differential geometry (prof. H. Heintz).