CURRICULUM VITAE ET STUDIORUM

ELENA ANGELINI

PERSONAL INFORMATIONS

Name and surname: Elena Angelini

Date and place of birth: August 27, 1986, Firenze (FI, Italy)

Citizenship: Italian

Recidence: Via Giuseppe di Vittorio 2/N, 50068 Rufina, Firenze (FI, Italy)

Italian tax ID number: NGL LNE 86M67 D612 Z

ACTUAL POSITION

Post-Doc (scientific advisors: professors Ilaria Cardinali and Luca Chiantini)

at Dipartimento di Ingegneria dell'Informazione e Scienze Matematiche, Università degli Studi di Siena

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PAST POSITIONS

- April 15, 2016 – April 14, 2018 (expected)
  Post-Doc at Dipartimento di Ingegneria dell'Informazione e Scienze Matematiche, Università degli Studi di Siena, Italy (scientific advisors: professors Ilaria Cardinali and Luca Chiantini)
- June 1, 2014 – April 14, 2016
  Post-Doc at Dipartimento di Matematica e Informatica, Università degli Studi di Ferrara, Italy (scientific advisor: professor Massimiliano Mella)

- January 1, 2010 – December 31, 2012

  Ph.D. student in Mathematics at Dipartimento di Matematica e Informatica "U. Dini", Università degli Studi di Firenze, Italy (scientific advisors: professors Giorgio Ottaviani and Daniele Faenzi)

EDUCATION

- May 6, 2013

  Ph.D. in Mathematics at Dipartimento di Matematica e Informatica "U. Dini", Università degli Studi di Firenze, Italy; thesis on "The Torelli problem for Logarithmic bundles of hypersurface arrangements in the projective space"; scientific advisors: professors Giorgio Ottaviani and Daniele Faenzi

- October 15, 2009

  Master degree in Mathematics at Dipartimento di Matematica e Informatica "U. Dini", Università degli Studi di Firenze, Italy; thesis on "Varietà secanti alle varietà spinoriali"; scientific advisor: professor Giorgio Ottaviani; grade 110/110 with honour

- October 12, 2007

  Bachelor degree in Mathematics at Dipartimento di Matematica e Informatica "U. Dini", Università degli Studi di Firenze, Italy; thesis on "Il Teorema di de Rham"; scientific advisor: professor Giorgio Ottaviani; grade 110/110 with honour

- July 8, 2004

  High school diploma at Liceo Scientifico Statale "Ernesto Balducci", Pontassieve, Firenze (FI, Italy); grade 100/100

- May 2003 and March 2004

  "Diplome d'études en Langue Française 1er degré" at Institut Français de Florence

- June 2002

  "Preliminary English Test" of University of Cambridge, Local Examinations Syndacate, International Examinations; grade pass

ORGANIZATIONAL EXPERIENCES

- Semptember 2017 →
  Co-organizer, with Cristano Bocci, Luca Chiantini, Massimiliano Mella and Giorgio Ottaviani of the cycle of seminars on "Algebraic Geometry and Tensors"
  (http://web.math.unifi.it/gruppi/algebraic-geometry/GeometriaAlgebricaeTensori20172018.html)

- 2017
  Co-organizer, with Cristiano Bocci and Giorgio Ottaviani, of the workshop "A Spring day in Projective Geometry – On the occasion of Luca Chiantini's 60th birthday", held at the Dipartimento di Matematica e Informatica "U. Dini", Università degli Studi di Firenze, on May 5, 2017
  (https://sites.google.com/unife.it/aspringdayinprojectivegeometry/home)

- December 2016 - May 2017
  Co-organizer, with Cristano Bocci, Luca Chiantini, Massimiliano Mella

and Giorgio Ottaviani of the cycle of seminars on "Algebraic Geometry and Tensors"
(http://web.math.unifi.it/gruppi/algebraic-geometry/GeometriaAlgebricaeTensori20162017.html)

- November 2015 – May 2016
Co-organizer, with Cristano Bocci, Luca Chiantini, Massimiliano Mella and Giorgio Ottaviani of the cycle of seminars on "Real Algebraic Geometry and Tensors"
(http://web.math.unifi.it/gruppi/algebraic-geometry/GeometriaAlgebricaRealeeTensori20152016.html)

- January 2015 – October 2015
Co-organizer, with Cristano Bocci, Luca Chiantini, Massimiliano Mella and Giorgio Ottaviani of the cycle of seminars on "Numerical Algebraic Geometry"
(http://web.math.unifi.it/gruppi/algebraic-geometry/GeometriaAlgebricaNumerica20142015.html)

- September 2012 – February 2013
Organizer of the seminars "Seminari del dottorato" at the the Dipartimento di Matematica e Informatica "U. Dini", Università degli Studi di Firenze

SERVICE EXPERIENCES

- February 2015 – April 2016
Post-Doc representative at the Dipartimento di Matematica e Informatica, Università degli Studi di Ferrara, Italy

- September 2013 →
Referee

- December 2011 →
System administration and maintenance of the website http://web.math.unifi.it/gruppi/algebraic-geometry/ of the Algebraic Geometry group in Florence

RESEARCH GROUPS MEMBERSHIP

- 2018 →
Member of the Italian PRIN 2015 - Geometry of Algebraic Varieties (B16J15002000005)

- 2015 →
Member of the Italian UMI

- 2014 →
Participant of the Italian FAR (coordinator: professor Massimiliano Mella)

- 2012 →
Participant of the Italian research program PRIN "Varietà reali e complesse: geometria, topologia e analisi armonica" (coordinator in Florence: professor Graziano Gentili)

- 2010 →
Member of the Italian GNSAGA (Gruppo Nazionale per le Strutture Algebriche, Geometriche e le loro Applicazioni), sezione Geometria algebrica e algebra commutativa, of INdAM (Istituto Nazionale di Alta Matematica)

- 2010 →

Participant of the Italian research group of MIUR "Classificazione delle varietà reali e complesse" (ex 60%) (coordinators: professors Giorgio Ottaviani and Giorgio Patrizio

RESEARCH INTERESTS

ALGEBRAIC
GEOMETRY

- Secant varieties
- Defectivity problem for secant varieties
- Tensors decomposition over the complex and real field and identifiability
- Simultaneous Waring decomposition of homogeneous polynomials
- Numerical Algebraic Geometry and homotopy continuation techniques (use of softwares: Bertini, Macaulay2)
- Birational geometry: Cremona equivalence of surfaces in P^3 and generalizations
- Torelli type problems for logarithmic bundles of hypersurfaces arrangements in the complex projective space
- Vector bundles over algebraic varieties
- Moduli spaces of vector bundles

RESEARCH PRODUCTS

- E. Angelini, C. Bocci, L. Chiantini, "Catalecticant intersections and unidentifiable cases" (2018), in preparation
- E. Angelini, L. Chiantini, N. Vannieuwenhoven, "Identifiability beyond Kruskal's bound for symmetric tensors of degree 4" (2017), submitted for publication, arXiv:1712.04211 [math.AG]
- E. Angelini, "Waring decompositions and identifiability via Bertini and Macaulay2 softwares" (2017), talk given by the author during the fourteenth International conference on Effective Methods in Algebraic Geometry - MEGA 2017, slides available at https://mega2017.inria.fr/files/2017/06/Angelini.pdf
- E. Angelini, "On complex and real identifiability of tensors" (2017), to appear on Rivista di Matematica dell'Università di Parma
- E. Angelini, C. Bocci, L. Chiantini, "Real identifiability vs complex identifiability", Linear and Multilinear Algebra (2017), DOI: 10.1080/03081087.2017.1347137
- E. Angelini, F. Galuppi, M. Mella, G. Ottaviani, "On the number of simultaneous Waring decompositions for a generic polynomial vector", Journal of Pure and Applied Algebra 222 (2018), 950–965, DOI: 10.1016/j.jpaa.2017.05.016
- E. Angelini, M. Bonfanti, F. Felici, M. Lavaggi, "Bounding the volume of ε-log canonical weak del Pezzo surfaces" (2015), in preparation
- E. Angelini, poster "Polinomi e identificabilità", presented on the oocasion of Unifestival, section "Cosa fanno i matematici di Unife", Ferrara (September 25-27, 2015)
- E. Angelini, M. Mella, "The action of the Cremona group on rational curves of P^3" (2015), arXiv:1505.00563v1 [math.AG]
- E. Angelini, "Logarithmic bundles of multi-degree arrangements in P^n" Documenta Mathematica 20 (2015), 507-529, (arXiv:1410.8770v2 [math.AG])
- E. Angelini, "Logarithmic bundles of hypersurface arrangements in P^n", Collectanea Mathematica, volume 65, issue 3 (2014), 285-302

(arXiv:1304.5709v3 [math.AG])

- E. Angelini, "The Torelli problem for Logarithmic bundles of hypersurface arrangements in the projective space", Ph. D. thesis (2013), (arXiv:1506.01931v1 [math.AG])
- E. Angelini, poster "The Torelli problem for Logarithmic bundles of hypersurface arrangements in the projective space", presented on the occasion of the Workshop "Varietà reali e complesse: geometria, topologia e analisi armonica", SNS Pisa (February 28 – March 3, 2013)
- E. Angelini, poster "Logarithmic bundles attached to arrangements of conics", presented on the occasion of "Arrangements in Pyrénées" - School on hyperplane arrangements and related topics, Laboratoire de Mathematiques Appliquées, Université de Pau et des pays de l'Adour, (June 11 – 15, 2012)
- E. Angelini, "Higher secants of spinor varieties", Bollettino U.M.I. (9) IV (2011), 213-235 (arXiv:1011.2337v1 [math.AG])
- E. Angelini, "Varietà secanti alle varietà spinoriali", Master thesis (2009)

RESEARCH PERIODS ABROAD

- March 15 - April 14, 2011
Université de Pau et des pays de l'Adour, Laboratoire de Mathematiques Appliquées CNRS – UMR 5142 IPRA, Avenue de l'Université – 64000 Pau (France), invited by professors Daniele Faenzi and Jean Vallés

INVITED TALKS

- June 15, 2017
"Waring decompositions and identifiability via Bertini and Macaulay2 softwares", 14th International conference on Effective Methods in Algebraic Geometry - MEGA 2017, Castle of Nice University, campus Valrose, Nice (France)
- April 7, 2017
"Real identifiability and complex identifiability", Dipartimento di Matematica, Università di Bologna, Bologna (Italy)
- October 7, 2015
"Results of Torelli type for logarithmic bundles of hypersurfaces in P^n", Dipartimento di Scienze Matematiche "G. L. Lagrange", Politecnico di Torino, Torino (Italy)
- September 8, 2015
"The action of the Cremona group on subvarieties of P^n", session S18 of Algebraic Geometry on the occasion of the XX Congresso dell'Unione Matematica Italiana, Siena (Italy)
- June 11, 2015
"Torelli type results for logarithmic bundles of arrangements in P^n", Special Session 53 Vector Bundles on Projective Varieties on the occasion of the AMS-EMS-SPM International Meeting, Porto (Portugal)
- February 19, 2015
"Scomposizione di forme binarie e utilizzo dei software Bertini e Macaulay2", Dipartimento di Matematica e Informatica "Ulisse Dini", Università degli Studi di Firenze, Firenze (Italy)
- July 14, 2014

- "Logarithmic bundles of multi-degree arrangements in P^n", Summer School on "An Interdisciplinary Approach to Tensor Decomposition", Fondazione Bruno Kessler, Povo, Trento (Italy)
- June 23, 2014
  "Logarithmic bundles of multi-degree arrangements in P^n", GAeL XXII, SISSA Trieste (Italy)
- June 10, 2014
  "Logarithmic bundles of multi-degree arrangements in P^n", Dipartimento di Matematica e Informatica, Università degli Studi di Ferrara, Ferrara (Italy)
- May 23, 2013
  "Il problema di Torelli per fibrati logaritmici di configurazioni di ipersuperfici nello spazio proiettivo", Dipartimento di Matematica e Fisica, Università Roma Tre, Roma (Italy)
- April 8, 2013
  "Il problema di Torelli per fibrati logaritmici di configurazioni di ipersuperfici nello spazio proiettivo", Dipartimento di Matematica "Ulisse Dini", Università degli Studi di Firenze, Firenze (Italy)
- February 28 – March 3, 2013
  Poster "The Torelli problem for Logarithmic bundles of hypersurface arrangements in the projective space", Workshop "Varietà reali e complesse: geometria, topologia e analisi armonica", SNS Pisa (Italy)
- October 18, 2012
  "Fibrati logaritmici e configurazioni di ipersuperfici in $P^n(C)$", Progressi Recenti in Geometria Reale e Complessa, Levico Terme, Trento (Italy)
- June 11 – 15, 2012
  Poster "Logarithmic bundles attached to arrangements of conics", in occasione di "Arrangements in Pyrénées" - School on hyperplane arrangements and related topics, Laboratoire de Mathematiques Appliquées, Université de Pau et des pays de l'Adour, Pau (France)
- June 5, 2012
  "Il problema di Torelli per fibrati logaritmici di configurazioni di coniche in $P^2(C)$", Dipartimento di Matematica, Università degli Studi di Parma, Parma (Italy)
- May 24, 2012
  "Il problema di Torelli per fibrati logaritmici di configurazioni di coniche in $P^2(C)$", Giornate di Geometria Algebrica ed Argomenti Correlati XI, Centro De Giorgi, Pisa (Italy)
- December 12, 2011
  "Il Problema di Torelli per Fibrati Logaritmici", Dipartimento di Matematica "Ulisse Dini", Università degli Studi di Firenze, Firenze (Italy)
- March 22, 2011
  "Higher secants of spinor varieties", Laboratoire de Mathematiques Appliquées, Université de Pau et des pays de l'Adour, Pau (France)
- April 9, 2010
  "Orbitopi di Carathéodory", Dipartimento di Matematica "Ulisse Dini", Università degli Studi di Firenze, Firenze (Italy)

WORKSHOPS AND SCHOOLS

- July 4 - 6, 2017
  International workshop on "Quantum Physics and Geometry", Levico Terme, Trento (Italy)

- June 21 – 24, 2017
  "Modern Algebra and Classical Geometry – Together with Edoardo Sernesi", FBK, Trento (Italy)
- June 12 -16, 2017
  "MEGA 2017 – International conference on effective methods in algebraic geometry", Université Nice Sophia Antipolis, Nice (France)
- May 5, 2017
  "A Spring day in Projective Geometry – On the occasion of Luca Chiantini's 60th birthday", Dipartimento di Matematica e Informatica "U. Dini", Università di Firenze, Firenze (Italy)
- April 26 – May 3, 2017
  Ph. D. course "Tensor decompositions and their applications" (professor: Nick Vannieuwenhoven) held at Dipartimento di Ingegneria dell'Informazione e Scienze Matematiche, Siena (Italy)
- January 26 – 28, 2017
  "Perspectives in Geometry – A conference in memory of Paolo de Bartolomeis", Dipartimento di Matematica e Informatica "U. Dini", Università di Firenze, Firenze (Italy)
- September 7 – 9, 2015
  XX Congresso dell'Unione Matematica Italiana, Dipartimento di Ingegneria dell'Informazione e Scienze Matematiche, Siena (Italy)
- August 30 – September 4, 2015
  "Classification of Projective Varieties", conference organized by Centro Internazionale per la Ricerca Matematica (CIRM) and held at Bellavista Relax Hotel di Levico Terme, Trento (Italy)
- June 15 – 19, 2015
  MEGA 2015 (Effective Methods in Algebraic Geometry), Università di Trento, Trento (Italy)
- June 15 -18, 2015
  Conferenza AGaFe in onore del 60° compleanno di Philippe Ellia, Ferrara (Italy)
- June 10 -13, 2015
  AMS-EMS-SPM Joint Meetings, Porto (Portugal)
- April 15 -18, 2015
  "Colloquium GRIFGA 2015", Palazzo Feltrinelli – Gargnano del Garda, Brescia (Italy)
- July 14 – 18, 2014
  Summer School on "An Interdisciplinary Approach to Tensor Decomposition", Fondazione Bruno Kessler, Povo, Trento (Italy)
- June 23 – 27, 2014
  "GAeL XXII", SISSA Trieste (Italy)
- September 16 – October 4, 2013
  "Pragmatic 2013", research school in Algebraic Geometry and Commutative Algebra, Catania (professors Paolo Cascini, Alessio Corti, Yujiro Kawamata)
- September 1 – 7, 2013
  "Power sum decompositions and apolarity, a geometric approach" - 36th September Algebraic Geometry School (professors Giorgio Ottaviani, Kristian Ranestad, Alessandra Bernardi), schhol organized by the Institute of Mathematics of University of Warsaw and held in Lukecin (Poland)
- February 28 – March 3, 2013
  Workshop "Varietà reali e complesse: geometria, topologia e analisi armonica", SNS Pisa (Italy)

- October 14 – 19, 2012
  "Progressi Recenti in Geometria Reale e Complessa", workshop organized by Centro Internazionale per la Ricerca Matematica (CIRM) and held at Bellavista Relax Hotel di Levico Terme, Trento (Italy)
- September 17 – 21, 2012
  "School and (Workshop) on Invariant Theory and Projective Geometry" (professors Giorgio Ottaviani, Laurent Manivel), Fondazione Bruno Kessler, Povo, Trento (Italy)
- July 1 – 14, 2012
  Corso Estivo di Matematica "Tensor: Waring Problems and Geometric Complexity Theory" (docenti: prof. Joseph Landsberg, prof. Massimiliano Mella) organized by Scuola Matematica Universitaria - Cortona, Palazzone della Scuola Normale Superiore (Italy)
- June 11 – 15, 2012
  "Arrangements in Pyrénées" - School on hyperplane arrangements and related topics, Laboratoire de Mathematiques Appliquées, Université de Pau et des pays de l'Adour, Pau (France)
- May 23 – 26, 2012
  Giornate di Geometria Algebrica ed Argomenti Correlati XI, Centro De Giorgi, Pisa (Italy)
- September 12 – 17, 2011
  School and Workshop on Tropical and Toric Geometry, Università degli Studi di Trento, Trento (Italy)
- July 17 – 29, 2011
  Summer Graduate Workshop "Toric Varieties in Cortona" (professors David Cox, Hal Schenck), Cortona, Palazzone della Scuola Normale Superiore (Italy)
- April 7, 2011
  "Rencontres Pau – Tarbes - Toulouse de Géometrie Algébrique", Toulouse (France)
- September 20 – 21 – 23, 2010
  "Configurazioni di iperpiani e fibrati logaritmici", course given by professor Daniele Faenzi, Dipartimento di Matematica "U. Dini", Firenze (Italy)
- August 1 – September 3, 2010
  Corso estivo di matematica organized by Scuola Matematica Interuniversitaria and held at Università di Perugia (prof. Chris Peterson – algebraic geometry; prof. Ernst Heintze – differential geometry)
- June 3 – 5, 2010
  "Journées Paloises de Géométrie algébrique", Laboratoire de Mathematiques Appliquées, Université de Pau et des pays de l'Adour, Pau (France)
- May – June, 2009
  "Geometry of varieties in spaces of tensors", couse given by professor Joseph Landsberg (Texas A&M University), Dipartimento di Matematica "U. Dini", Firenze (Italy)

TEACHING EXPERIENCES

- 2015-2017
  Teaching assistant for the course "Algebra Lineare" (MAT/03 - professor Ilaria Cardinali), Laurea Triennale in Ingegneria Informatica e dell'Informazione – Ingegneria Gestionale (Dipartimento di Ingegneria

dell'Informazione e Scienze Matematiche, Università degli Studi di Siena)

- 2014-2016
Teaching assistant the course "Geometria" (MAT/03 – professor Rossana Chiavacci), Laurea Triennale in Fisica (Dipartimento di Fisica e Scienze della Terra, Università degli Studi di Ferrara)
- 2012-2013
Teaching assistant for the course "Geometria I" (MAT/03 - professors Graziano Gentili, Marco Maggesi), Laurea Triennale in Matematica (Facoltà di Scienze Matematiche Fisiche e Naturali, Università degli Studi di Firenze)
- 2010-2011
Teaching assistant for the course "Istituzioni di Geometria Superiore" (MAT/03 - professor Graziano Gentili), Laurea Magistrale in Matematica (Facoltà di Scienze Matematiche Fisiche e Naturali, Università degli Studi di Firenze)
- 2010-2011
Instructor for the course "Matematica integrativa del calcolo differenziale con applicazioni (MAT/05)", Laurea in Scienze forestali e ambientali (Facoltà di Agraria, Università degli Studi di Firenze)

LANGUAGE SKILLS

ITALIAN

- Native speaker

ENGLISH

- Excellent

FRENCH

- Excellent

COMPUTER SKILLS

- Microsoft Office package (Word, Excel, PowerPoint, Publisher, Access, Outlook, OneNote) and equivalent open-source packages
- Latex, Scientific Work Place
- Bertini, Macaulay2, Magma, Maple, Matlab
- Geogebra
- HTML programming language

Siena, 15/01/2018

Elena Angelini