

CURRICULUM VITAE
ANGELO FELICE LOPEZ

(October 2023)

Current Position (since academic year 2001-02): **Full Professor of Geometry**, Department of Mathematics and Physics, Roma Tre University, Rome, Italy
from 2017 to 2021: **Chairman of Graduate Studies in Mathematics**, University of Roma Tre
from a.y. 2001-02 to 2003-04: **Chairman of Undergraduate Studies in Mathematics**, University of Roma Tre
from a.y. 1994-95 to a.y. 2000-01: **Associate Professor of Geometry**, University of Roma Tre
a.y. 1993-94: **Associate Professor**, University of Milano
a.y. 1991-92, 1992-93: **Researcher of Geometry**, University of Pavia
a.y. 1990-91: **CNR/NATO fellow**, University of California, Riverside
a.y. 1988-89, 1989-90: **Postdoc**, University of California, Riverside
from a.y. 1984-85 to a.y. 1987-88: Ph.D. Student, Brown University
a.y. 1983-84: Ph.D. Student (first year), University of Roma “La Sapienza”
a.y. 1982-83: Military Service
from a.y. 1977-78 to a.y. 1981-82: Undergraduate student, University of Roma “La Sapienza”

DEGREES

1988 **Ph.D. in Mathematics**, Brown University
1982 **Laurea in Matematica**, University of Roma “La Sapienza”

INVITED TALKS AT CONFERENCES

2023 Conference *Joy in Algebraic Geometry*, Levico Terme (Trento)
2023 Conference *A workshop on Geometry and Commutative algebra*, Politecnico of Milano
2023 Conference *Explicit Algebraic Geometry*, Bedlewo (Poland)
2022 Conference *Bandoleros 2022, Sixth Algebraic Geometry Meeting*, Ankara (Turkey)
2019 Conference *Positivity and Vanishing theorems III*, Lille (France)
2018 Conference *Differential, Algebraic and Topological Methods in Complex Algebraic Geometry*, Cetraro (Cosenza)
2017 Conference *A Fall Meeting in Algebraic Geometry and related topics*, Politecnico of Torino
2016 Conference *Workshop in Algebraic Geometry*, Easter Island (Chile)
2016 Conference *Positivity and Vanishing Theorems*, Lille (France)
2016 Workshop *Geometria in Bicocca 2016*, Milan
2015 Workshop *Projective Algebraic Geometry (celebrating Fyodor Zak’s 65th birthday)*, Moscow
2014 Workshop *Positivity of cycles*, Marrakech (Morocco)
2014 Workshop *Frontiers of rationality*, Longyearbyen (Norway)
2013 Conference *Geometria Algebraica nella Capitale*, Rome
2013 Conference *Edge Days 2013*, Edinburgh

2013 Conference *Symposium on Projective Algebraic Varieties and Moduli*, Yeosu (Korea)

2012 Workshop *On the abundance conjecture*, Toulouse

2012 Conference *XXII Brazilian Algebra Meeting*, Salvador - Bahia (Brasil)

2012 Workshop *A Midspring Math Meeting*, Politecnico of Torino

2012 Workshop *Algebraic Geometry III to II*, Roma Tor Vergata

2011 Workshop *Théories de classification et géométrie birationnelle des variétés algébriques et de leurs séries linéaires*, Strasbourg

2009 Conference *Workshop on Algebraic Geometry*, Madrid

2008 Conference *Algebraic Geometry, D-modules, Foliations and their interactions*, Buenos Aires (Argentina)

2007 Conference *Algebraic Geometry in Higher Dimensions*, Levico Terme (Italy)

2006 Conference *Eighth Meeting on Commutative Algebra and Algebraic Geometry*, Rio de Janeiro (Brasil)

2006 Workshop *Giornate Genovesi - Progetto INdAM 2006*, Genova (Italy)

2006 Convegno *Castelnuovo-Mumford regularity and related topics Conference*, Luminy (France)

2004 Workshop *Algebraic curves, monodromy and related topics*, Milano (Italy)

2002 Workshop *Global Geometry of Algebraic Varieties*, Madrid (Spain)

2002 Conference *The Fano Conference*, Torino (Italy)

2002 Conference *Birational and Projective Geometry of Algebraic Varieties*, Ferrara (Italy)

2002 Conference *First International Meeting Unione Matematica Italiana - American Mathematical Society* (Special Session 6, Commutative Algebra and the Geometry of Projective Varieties), Pisa (Italy)

2002 Workshop *Projecting varieties, secants, Jordan algebras*, Firenze (Italy)

2001 Conference *XIV Coloquio Latinoamericano de Algebra*, La Falda (Argentina)

2001 *Conference on Commutative Algebra and Algebraic Geometry* (60th birthday of S. Greco), Catania (Italy)

2000 Conference *School on vanishing theorems and effective results in algebraic geometry*, ICTP Trieste (Italy)

1999 Conference *Recent developments of the theory of algebraic surfaces*, Furore (Italy)

1998 Conference *INTAS Italy-France-Russia-Spain*, Moscow (Russia)

1996 *Europroj Annual Conference '96*, University of Liverpool, short communication, Liverpool (England)

1995 *XV Congress of the Italian Mathematical Union* (Padova), communication in Algebraic Geometry, Padova (Italy)

1993 *Special Year in Algebraic Geometry*, MSRI (University of California Berkeley), Berkeley (CA, USA)

1993 Europroj Workshop on *Classification of Special Varieties*, Universität Bayreuth, Bayreuth (Germany)

1992 Conference *Classification of Algebraic Varieties*, University of l'Aquila (Italy)

- 1991 Conference *Giornate di Geometria Algebrica*, University of l'Aquila (Italy)
 1990 *861-st Conference of the American Mathematical Society*, Denton (Texas, USA)
 1990 *Europroj Annual Conference '90*, Sophia Antipolis (France)

INVITED TALKS AT UNIVERSITIES

- 2023 Polytechnic and University of Torino
 2021 Polytechnic and University of Torino
 2018 Goethe Universität Frankfurt am Main
 2017 University of Torino
 2015 Université de Lille
 2014 Université de Strasbourg (several)
 2013 University of Trento
 2012 University of Roma Tor Vergata
 2010 University of Trento
 2004 University of Pavia, University of Roma Tor Vergata
 2002 University of Roma Tor Vergata
 2001 University of Trento
 2000 Universidad Complutense de Madrid
 1998 University of California, Riverside (several)
 1997 Universidad Autonoma de Madrid, Universidad Complutense de Madrid, University of l'Aquila
 1995 University of Roma "La Sapienza"
 1994 Universidad Autonoma de Madrid (several), University of Milano
 1993 University of Kansas at Lawrence
 1992 Universidad Complutense de Madrid, University of Roma Tor Vergata, University of Milano
 1991 University of California, Los Angeles, University of California, Riverside
 1990 University of California, Los Angeles
 1989 University of California, Riverside
 1988 University of California, Los Angeles, Brown University

PH.D. THESES

- 2020 Marco D'Ambra (Università di Roma Tor Vergata) *Partially ample divisors on projective schemes and Ulrich vector bundles on projectively Cohen-Macaulay surfaces in \mathbb{P}^4*
 2018 Giosuè Emanuele Muratore (Roma Tre University) *Pseudoeffective cones in 2-Fano varieties and remarks on the Voisin map*
 2012 Fulvio Di Sciullo (University of Roma "La Sapienza") *Some problems concerning the pseudoeffective cone of blown-up surfaces and projectivized vector bundles*
 2012 Salvatore Cacciola (Roma Tre University) *Some topics on Zariski decompositions and restricted base loci of divisors on singular varieties*
 2010 Lorenzo Di Biagio (University of Roma "La Sapienza") *Pluricanonical systems for 3-folds, 4-folds and n -folds of general type*

CONFERENCES ORGANIZED

Giornate di Geometria Algebrica e argomenti correlati XVI, Cetraro (Cosenza) 2023
Coordinator of the *Algebraic Geometry* session of the *XXII congress of the Unione Matematica Italiana*, Pisa 2023
First UMI meeting of Ph.D. students. Congress “100 years of the Unione Matematica Italiana and 800 years of the University of Padova”, Padova 2022
Algebraic Geometry in Roma Tre. On the occasion of Sandro Verra’s 70th birthday, Rome 2022
Giornate di Geometria Algebrica e argomenti correlati XV, Gargnano 2021
Giornate di Geometria Algebrica e argomenti correlati XIV, Genova 2018
Korean-Italian meeting in Algebraic Geometry 2018, Seoul 2018
A day in honor of Edoardo Sernesi, Rome 2017
Modern Algebra and Classical Geometry, Together with Edoardo Sernesi, Trento 2017
Giornate di Geometria Algebrica e argomenti correlati XIII, Catania 2016
INdAM Italian-Korean meeting in Algebraic Geometry 2015, Cortona 2015
Classical and Modern Algebraic Geometry session in the *First Joint International Meeting RSME-SCM-SEMA-SIMAI-UMI*, Bilbao 2014
Giornate di Geometria Algebrica e argomenti correlati XII, Torino 2014
Giornate di Geometria Algebrica e argomenti correlati XI, Pisa 2012
Giornate di Geometria Algebrica e argomenti correlati X, Gargnano 2010
Giornate di Geometria Algebrica e argomenti correlati IX, Levico Terme (TN) 2008
Giornate di Geometria Algebrica e argomenti correlati VIII, Trieste 2006
Giornate di Geometria Algebrica e argomenti correlati VII, Rimini 2004
Coordinator of the *Algebraic Geometry and Commutative Algebra* session of the *XVII congress of the Unione Matematica Italiana*, Milano 2003
Perspectives in classification and moduli theory, Cortona 2002
Giornate di Geometria Algebrica e argomenti correlati VI, Anacapri 2002
Giornate di Geometria Algebrica e argomenti correlati V, Gargnano 2000
Giornate di Geometria Algebrica e argomenti correlati IV, Siena 1998

TEACHING EXPERIENCE

University of Roma Tre: *Geometry 1, 2, 3, 4, 5, 6, 9, 10*, Ph.D. courses “*Positivity in algebraic geometry I*”, “*Positivity in algebraic geometry II*”, “*Birational geometry of algebraic varieties*”
University of Roma “La Sapienza” and Roma Tre: Ph.D. course in *Algebraic Geometry*
University of Milano: *Calculus*
University of Pavia: *Geometry 2, 5, 6*
University of California, Riverside: *Calculus, Advanced Calculus* (several), *Differential Geometry* and *Finite Geometry*
Brown University: *Advanced Calculus*, T.A. for *Calculus* and *Algebraic Geometry* (Ph.D.)

GRANTS

Italian National Project: *Advances in Moduli Theory and Birational Classification*, from 2017 to today

Italian National Project: *Geometry of algebraic varieties*, from 1991 to 2016

National Coordinator of the Research Project INdAM *Birational geometry of projective varieties*, 2006-07

National Science Foundation, research grant, 1988-91

CNR research fellowship, 1988

COLLABORATION AND SOCIETIES

Member of *Italian Mathematical Union*, *American Mathematical Society* and *G.N.S.A.G.A.* (National Algebraic Geometry group)

Collaboration with *Mathematical Reviews* since 1988

Referee for *Advances in Geometry*, *Bollettino dell'Unione Matematica Italiana*, *Canadian Journal of Mathematics*, *Communications in Contemporary Mathematics*, *Communications in Algebra*, *European Journal of Mathematics*, *Geometriae Dedicata*, *International Mathematics Research Notices*, *International Journal of Mathematics*, *Journal of Algebraic Geometry*, *Kyoto Journal of Mathematics*, *Mathematische Annalen*, *Mathematica Scandinavica*, *Mathematische Zeitschrift*, *Proceedings di Convegni*, *Proceedings of the Edinburgh Mathematical Society*, *Rendiconti del Circolo Matematico di Palermo*, *Transactions of the American Mathematical Society*.

PUBLICATION LIST

- [1] **A.F. Lopez**, Noether-Lefschetz theory and the Picard group of projective surfaces, *Memoirs of the American Mathematical Society* 89 (1991), no. 438.
- [2] **A.F. Lopez**, On the existence of components of the Hilbert scheme with the expected number of moduli, *Mathematische Annalen* 289 (1991), no. 3, 517-528.
- [3] **C. Ciliberto - A.F. Lopez**, On the existence of components of the Noether-Lefschetz locus with given codimension, *Manuscripta Mathematica* 73 (1991), no. 4, 341-357.
- [4] **A.F. Lopez**, On the curves lying on a general surface containing a fixed space curve, *Ricerche di Matematica*, vol. XLI (1992), no. 1, 21-40.
- [5] **A.F. Lopez**, Hodge theory on the Fermat surface and the Picard number of a general surface in \mathbb{P}^3 containing a plane curve, *Bollettino dell'Unione Matematica Italiana*, 7-B (1993), no. 1, 1-22.
- [6] **C. Ciliberto - A.F. Lopez - R. Miranda**, Projective degenerations of K3 surfaces, Gaussian maps, and Fano threefolds, *Inventiones Mathematicae* 114 (1993), no. 3, 641-667.
- [7] **A.F. Lopez**, Noether-Lefschetz, space curves and mathematical instantons, *Mathematische Annalen* 298 (1994), no. 3, 385-402.
- [8] **A.F. Lopez - P. Pirola**, On the curves through a general point of a smooth surface in \mathbb{P}^3 , *Mathematische Zeitschrift* 219 (1995), no. 1, 93-106.
- [9] **A.F. Lopez**, Surjectivity of Gaussian maps on curves in \mathbb{P}^r with general moduli, *Journal of Algebraic Geometry* 5 (1996), no. 4, 609-631.
- [10] **C. Ciliberto - A.F. Lopez - R. Miranda**, On the corank of Gaussian maps for general embedded K3 surfaces, *Israel Mathematical Conference Proceedings. Papers in honor of Hirzebruch's 65th birthday*, vol. 9, AMS Publications (1996), 141-157.
- [11] **C. Ciliberto - A.F. Lopez - R. Miranda**, Some remarks on the obstructedness of cones

- over curves of low genus, In: *Higher dimensional complex varieties, Proceedings Trento 1994*. De Gruyter, Berlin-New York: 1996, 167-182.
- [12] **C. Ciliberto - A.F. Lopez - R. Miranda**, Classification of varieties with canonical curve section via Gaussian maps on canonical curves, *American Journal of Mathematics* 120 (1998), no. 1, 1-21.
- [13] **L. Chiantini - A.F. Lopez**, Focal loci of families and the genus of curves on surfaces, *Proceedings of the American Mathematical Society* 127 (1999), no. 12, 3451-3459.
- [14] **A.F. Lopez**, On the existence of components of the Hilbert scheme with the expected number of moduli, II, *Communications in Algebra* 27 (1999), no. 7, 3485-3493
- [15] **C. Ciliberto - A.F. Lopez - R. Miranda**, On the Wahl map of plane nodal curves, In: *Proceedings of the Symposium on Complex Analysis and Algebraic Geometry in memory of Michael Schneider, Bayreuth 1998*. De Gruyter, Berlin-New York: 2000, 155-163.
- [16] **L. Chiantini - A.F. Lopez - Z. Ran**, Subvarieties of generic hypersurfaces in any variety, *Mathematical Proceedings of the Cambridge Philosophical Society* 130 (2001), no. 2, 259-268.
- [17] **M.C. Chang - A.F. Lopez**, A linear bound on the Euler number of threefolds of Calabi-Yau and of general type, *Manuscripta Mathematica* 105 (2001), no. 1, 47-67.
- [18] **C. Ciliberto - A.F. Lopez**, On the number of moduli of extendable canonical curves, *Nagoya Mathematical Journal* 167 (2002), 101-115.
- [19] **L. Giraldo - A.F. Lopez - R. Muñoz**, On the projective normality of Enriques surfaces, *Mathematische Annalen* 324 (2002), no. 1, 135-158.
- [20] **A.F. Lopez - Z. Ran**, On the irreducibility of secant cones, and an application to linear normality, *Duke Mathematical Journal* 117 (2003), no. 3, 389-401.
- [21] **L. Giraldo - A.F. Lopez - R. Muñoz**, On the existence of Enriques-Fano threefolds of index greater than one, *Journal of Algebraic Geometry* 13 (2004), no. 1, 143-166.
- [22] **A.F. Lopez - C. Maclean**, Explicit Noether-Lefschetz for arbitrary threefolds, *Mathematical Proceedings of the Cambridge Philosophical Society* 143 (2007), no. 2, 323-342.
- [23] **A.L. Knutsen - A.F. Lopez**, A sharp vanishing theorem for line bundles on K3 or Enriques surfaces, *Proceedings of the American Mathematical Society* 135 (2007), no. 11, 3495-3498.
- [24] **A.L. Knutsen - A.F. Lopez**, Surjectivity of Gaussian maps for curves on Enriques surfaces, *Advances in Geometry* 7 (2007), no. 2, 215-247.
- [25] **L. Chiantini - A.F. Lopez**, Corrigendum to: Focal loci of families and the genus of curves on surfaces, *Proceedings of the American Mathematical Society* 137 (2009), no. 11, 3951-3951.
- [26] **A.L. Knutsen - A.F. Lopez**, Brill-Noether theory of curves on Enriques surfaces I: the positive cone and gonality, *Mathematische Zeitschrift* 261 (2009), no. 3, 659-690.
- [27] **A.F. Lopez - R. Muñoz - J.C. Sierra Garcia**, On the extendability of elliptic surfaces of rank two and higher, *Annales de l'Institut Fourier*, 59 (2009), no. 1, 311-346.
- [28] **A.L. Knutsen - A.F. Lopez - R. Muñoz**, On the extendability of projective surfaces and a genus bound for Enriques-Fano threefolds, *Journal of Differential Geometry*, 88 (2011), no. 3, 483-518.
- [29] **A.L. Knutsen - A.F. Lopez - R. Muñoz**, On the proof of the genus bound for Enriques-Fano threefolds, *Journal of the Ramanujan Mathematical Society*, 27 (2012), no. 3, 375-395.
- [30] **F. Cukierman - A.F. Lopez - I. Vainsencher**, Enumeration of surfaces containing an elliptic quartic curve, *Proceedings of the American Mathematical Society* 142 (2014), no. 10, 3305-3313.
- [31] **S. Cacciola - A.F. Lopez**, Nakamaye's theorem on log canonical pairs, *Annales de l'Institut Fourier*, 64 (2014), no. 6, 2283-2298.

- [32] **S. Boucksom - S. Cacciola - A.F. Lopez**, Augmented base loci and restricted volumes on normal varieties, *Mathematische Zeitschrift* 278 (2014), no. 3-4, 979-985.
- [33] **A.L. Knutsen - A.F. Lopez**, Brill-Noether theory of curves on Enriques surfaces II: the Clifford index, *Manuscripta Mathematica* 147 (2015), no. 1-2, 193-237.
- [34] **A.L. Knutsen - A.F. Lopez**, Projective normality and the generation of the ideal of an Enriques surface, *Advances in Geometry* 15 (2015), no. 3, 339-348.
- [35] **A.F. Lopez**, Augmented base loci and restricted volumes on normal varieties, II: the case of real divisors, *Mathematical Proceedings of the Cambridge Philosophical Society* 159 (2015), no. 3, 517-527.
- [36] **S. Cacciola - A.F. Lopez - F. Viviani**, Moriawaki divisors and the augmented base loci of divisors on the moduli space of curves, *Michigan Mathematical Journal* 65 (2016), no. 3, 533-546.
- [37] **C. Keem, Y.H. Kim, A.F. Lopez**, Irreducibility and components rigid in moduli of the Hilbert scheme of smooth curves, *Mathematische Zeitschrift* 292 (2019), no. 3-4, 1207-1222.
- [38] **F. Bastianelli, A. Kouvidakis, A.F. Lopez, F. Viviani**, Effective cycles on the symmetric product of a curve, I: the diagonal cone. (with an appendix by Ben Moonen), *Transactions of the American Mathematical Society* 372 (2019), no. 12, 8709-8758.
- [39] **A.F. Lopez**, On the existence of Ulrich vector bundles on some surfaces of maximal Albanese dimension, *European Journal of Mathematics* 5 (2019), no. 3, 958-963.
- [40] **F. Bastianelli, A. Kouvidakis, A.F. Lopez, F. Viviani**, Effective cycles on the symmetric product of a curve, II: the Abel-Jacobi faces, *Atti della Accademia Nazionale dei Lincei. Rendiconti Lincei-Matematica e Applicazioni* 31 (2020), 839-878.
- [41] **C. Ciliberto - A.F. Lopez - R. Miranda**, Corrigendum to: Classification of varieties with canonical curve section via Gaussian maps on canonical curves, *American Journal of Mathematics*, 143 (2021), n. 6, 1661-1663.
- [42] **A.F. Lopez**, On the existence of Ulrich vector bundles on some irregular surfaces, *Proceedings of the American Mathematical Society* 149 (2021), n. 1, 13-26.
- [43] **U. Bruzzo, A. Grassi, A.F. Lopez**, Existence and density of general components of the Noether-Lefschetz locus on normal threefolds, *International Mathematics Research Notices* 2021, no. 17, 13416-13433.
- [44] **A.F. Lopez, R. Muñoz**, On the classification of non-big Ulrich vector bundles on surfaces and threefolds, *International Journal of Mathematics* 32 (2021), no. 14, Paper no. 2150111, 18pp.
- [45] **A.F. Lopez**, Augmented and restricted base loci of cycles. *Annales de l'Institut Fourier (Grenoble)* 72 (2022), no. 1, 435-464.
- [46] **A.F. Lopez**, On the positivity of the first Chern class of an Ulrich vector bundle, *Communications in Contemporary Mathematics* 24 (2022), no. 9, Paper No. 2150071, 22 pp..
- [47] **A.F. Lopez, R. Muñoz, J.C. Sierra**, Non-big Ulrich bundles: the classification on quadrics and the case of small numerical dimension, *Preprint 2022 (arXiv:2201.06019)*. To appear on *Manuscripta Mathematica*.
- [48] **A.F. Lopez, R. Muñoz, J.C. Sierra**, On the classification of non-big Ulrich vector bundles on fourfolds, *Preprint 2022 (arXiv:2205.10143)*. To appear on *Annali della Scuola Normale Superiore, Classe di Scienze*.
- [49] **A.F. Lopez**, On varieties with Ulrich twisted normal bundles, *Preprint 2022 (arXiv:2205.06602)*. To appear on *Perspectives on four decades: Algebraic Geometry 1980-2020. In memory of Alberto Collino. Trends in Mathematics, Birkhäuser*.
- [50] **G. Casnati, A.F. Lopez**, On a remark by Daniel Ferrand, *Preprint 2022 (arXiv:2212.04158)*.

- [51] **A.F. Lopez, J.C. Sierra**, A geometrical view of Ulrich vector bundles, *International Mathematics Research Notices* IMRN(2023), no. 11, 9754-9776.
- [52] **A.F. Lopez**, On the extendability of projective varieties: a survey. (with an appendix by Thomas Dedieu), *In: The art of doing Algebraic Geometry, Trends in Mathematics, dedicated to Ciro Ciliberto, Birkhäuser/Springer, Cham, 2023*.
- [53] **A.F. Lopez, D. Raychaudhury**, On varieties with Ulrich twisted tangent bundles, *Preprint 2023 (arXiv:2301.03104)*. To appear on *Annali di Matematica Pura ed Applicata*.
- [54] **V. Antonelli, G. Casnati, A.F. Lopez, D. Raychaudhury**, On varieties with Ulrich twisted conormal bundles, *Preprint 2023 (arXiv:2306.00113)*.