

## ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO

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## [Laura Pertusi] CURRICULUM VITAE

### INFORMAZIONI PERSONALI

COGNOME	PERTUSI
NOME	LAURA
DATA DI NASCITA	15 DICEMBRE 1990

### INTERESSI DI RICERCA

Geometria algebrica complessa. In particolare: categorie derivate di fasci coerenti, ipersuperfici cubiche, varietà di Gushel-Mukai, condizioni di stabilità su categorie triangolate, varietà olomorfe simplettiche irriducibili.

### TITOLI

#### TITOLO DI STUDIO

Master 2 Analyse, Arithmétique et Géométrie,  
Université de Paris-Sud 11, Orsay (Francia),  
in data Luglio 2015,  
con voto Bien.  
Borsa della Fondation Mathématiques Jacques Hadamard.  
Relatore: Prof. Francois Charles.  
Tesi: Variétés symplectiques holomorphes et conjecture du cone.

Laurea Magistrale in Matematica,  
Università degli studi di Torino,  
in data 16/07/2014,  
con voto 110 e lode.  
Relatore: Prof. Cinzia Casagrande.  
Tesi: Proprietà dell'algebra coomologica delle varietà di Kahler.

Laurea Triennale in Matematica,  
Università degli studi di Torino,  
in data 20/07/2012,  
con voto 110 e lode.  
Relatore: Prof. Sergio Garbiero.  
Tesi: Il Teorema di Fary-Milnor per curve annodate.

Diploma di Maturità scientifica,  
Liceo Scientifico Amedeo Avogadro, Vercelli,  
con voto 100.

**TITOLO DI DOTTORE DI RICERCA O EQUIVALENTI, OVVERO, PER I SETTORI INTERESSATI, DEL DIPLOMA DI SPECIALIZZAZIONE MEDICA O EQUIVALENTE, CONSEGUITO IN ITALIA O ALL'ESTERO**

Dottorato in Matematica,  
Università degli studi di Milano,  
in data 19/12/2018.  
Relatore: Prof. Paolo Stellari.  
Tesi: Geometry of fourfolds with an admissible K3 subcategory.

**CONTRATTI DI RICERCA, ASSEGNI DI RICERCA O EQUIVALENTI**

Assegno di ricerca,  
Università degli studi di Milano, Dipartimento di Matematica F. Enriques, Via Cesare Saldini 50, Milano,  
dal 01/03/2021 al 31/08/2022,  
su progetto PRIN 2017 "Moduli and Lie Theory".  
Mentore: Prof. Bert van Geemen.

Assegno di ricerca,  
Università degli studi di Milano, Dipartimento di Matematica F. Enriques, Via Cesare Saldini 50, Milano,  
dal 01/03/2019 al 28/02/2021,  
su progetto ERC Consolidator Grant 2017 "Stability conditions and enhancements".  
Mentore: Prof. Paolo Stellari.

Postdoctoral Research Associate,  
School of Mathematics, University of Edinburgh, Peter Guthrie Tait Road, Edinburgh (UK),  
dal 01/10/2018 al 31/12/2018,  
su progetto ERC Starting Grant "Wall-crossing and Birational Geometry".  
Mentore: Prof. Arend Bayer.

**DOCUMENTATA ATTIVITÀ DI FORMAZIONE O DI RICERCA PRESSO QUALIFICATI ISTITUTI ITALIANI O STRANIERI**

9-14 Dicembre 2019, University of Warwick, visiting position su invito del Prof. Chunyi Li.  
14-21 Settembre 2019, University of Edinburgh, visiting position su invito del Prof. Arend Bayer.  
1 Marzo - 31 Luglio 2019, Max Planck Institute of Mathematics, Bonn, visiting position su invito del Prof. Daniel Huybrechts.  
30 Gennaio - 13 Febbraio 2019, MSRI, Berkeley and University of California Santa Barbara, visiting position sul invito del Prof. Xiaolei Zhao.  
10-20 Settembre 2018, University of California Santa Barbara, visiting position su invito del Prof. Xiaolei Zhao.  
11-27 Aprile 2018, Northeastern University Boston, visiting position su invito del Prof. Xiaolei Zhao.  
Ottobre 2017, Northeastern University Boston, visiting position su invito del Prof. Emanuele Macrì.  
31 Maggio-17 Giugno 2017, Institut Henri Poincaré, visiting position su invito del Prof. Emanuele Macrì.

**ORGANIZZAZIONE, DIREZIONE E COORDINAMENTO DI GRUPPI DI RICERCA NAZIONALI E INTERNAZIONALI, O PARTECIPAZIONE AGLI STESSI**

Membro del GNSAGA dal 2016 a oggi.

Partecipante al progetto ERC Starting Grant "Wall-crossing and Birational Geometry", P.I. Prof. Arend Bayer, da Ottobre a Dicembre 2018, University of Edinburgh.

Partecipante al progetto ERC Consolidator Grant 2017 “Stability conditions and enhancements”, P.I. Prof. Paolo Stellari, da Marzo 2019 a Febbraio 2021, Università degli studi di Milano.

Partecipante al progetto PRIN 2017 “Moduli and Lie Theory”, P.I. Prof. Bert van Geemen, da Marzo 2021 a oggi, Università degli studi di Milano.

#### CONSEGUIMENTO DI PREMI E RICONOSCIMENTI NAZIONALI E INTERNAZIONALI PER ATTIVITÀ DI RICERCA

Luglio 2020, Premio INDAM-SIMAI-UMI per tesi di dottorato in Matematica.

Novembre 2019, Premio Cuzzo per tesi di dottorato in Matematica.

Borsa di studio per visiting al Max Plack Institute of Mathematics, Bonn.

Borsa di studio per visiting a MSRI, Berkeley.

Borsa di studio per Master 2 della Fondation Mathématiques Jacques Hadamard.

#### ATTIVITÀ DI RELATORE A CONGRESSI E CONVEGNI NAZIONALI E INTERNAZIONALI

Data	Titolo	Sede
September 06-10, 2021	<i>S-invariant stability conditions and Fano threefolds of Picard rank 1</i>	Hausdorff School on Hyperkahler Geometry, University of Bonn, Germany.
April 27-30, 2021	<i>Ipersuperfici cubiche lisce di dimensione 4 e spazi di moduli di tipo O'Grady 10</i>	Giornate di Geometria Algebrica e Argomenti Correlati XV, online event.
April 22, 2021	<i>Derived categories, stability conditions and applications to Fano varieties</i>	Junior Seminar, University of Leuven, online seminar.
March 26, 2021	<i>Cubic fourfolds and moduli spaces of O'Grady 10 type</i>	Algebraic Geometry seminar, University of Utah, online seminar.
February 11, 2021	<i>Elliptic quintics on cubic fourfolds, O'Grady 10, and Lagrangian fibrations</i>	Algebraic Geometry seminar, Jussieu, Paris, online seminar.
February 2, 2021	<i>Cubic fourfolds and moduli spaces of O'Grady 10 type</i>	Derived seminar, zoom seminar.
November 20, 2020	<i>The K3 category of cubic fourfolds and Gushel-Mukai fourfolds,</i>	Premiazione INDAM-SIMAI-UMI, online seminar.
October 28, 2020	<i>Elliptic quintics on cubic fourfolds, O'Grady 10, and Lagrangian fibrations</i>	Algebraic Geometry and Arithmetic Seminar, Università di Pisa, online seminar.
October 10-11, 2020	<i>Elliptic quintics on cubic fourfolds, O'Grady 10, and Lagrangian fibrations</i>	AMS Fall 2020 Southeast virtual meeting.
July 12-18, 2020	<i>Elliptic quintics on cubic fourfolds, O'Grady 10, and Lagrangian fibrations</i>	Conference Moduli spaces, Birational Geometry and Derived Aspects, Oberwolfach, Germany.
May 15, 2020	<i>Stability conditions and moduli spaces for Kuznetsov components of Gushel-Mukai varieties</i>	Algebraic Geometry Seminar, Imperial College, London, online seminar.
April 29, 2020	<i>Stability conditions and moduli spaces for Kuznetsov components of Gushel-Mukai varieties</i>	Algebraic Geometry Seminar, Sapienza Università di Roma, online seminar.
April 23, 2020	<i>Marked and labelled Gushel-Mukai fourfolds</i>	Algebraic Geometry Seminar, Università degli studi di Milano, online seminar.
February 28, 2020	<i>Gushel-Mukai fourfolds and stability conditions</i>	Algebraic Geometry Seminar, Università di Roma Tor Vergata.
January 20-24, 2020	<i>Gushel-Mukai varieties and stability conditions</i>	Algebraic Geometry and Moduli Seminar, University of Zurich, Switzerland.

December 20, 2019	<i>The K3 category of cubic fourfolds and Gushel-Mukai fourfolds</i>	Giornata di Dipartimento 2019, Università di Roma Tor Vergata, Italy.
September 26-27, 2019	<i>Stability conditions on Gushel-Mukai fourfolds</i>	Conference “Genova-Torino-Milano Seminar”, Genova, Italy.
September 9-13, 2019	<i>Stability conditions on Gushel-Mukai fourfolds</i>	Conference “The Geometry of Derived Categories”, University of Liverpool, UK.
June 24-28, 2019	<i>Elliptic quintics on cubic fourfolds and O’Grady spaces</i>	Workshop on Derived Categories, Moduli Spaces and Deformation Theory, Cetraro, Italy.
June 3-7, 2019	<i>Elliptic quintics on cubic fourfolds and stability conditions</i>	Japanese-European Symposium on Symplectic Varieties and Moduli spaces, Zurich, Switzerland.
May 1-3, 2019	<i>Elliptic quintics on cubic fourfolds and stability conditions</i>	Fourth Meeting for Young Women in Mathematics “Cohomological Methods in Geometry”, University of Freiburg, Germany.
April 25, 2019	<i>On the double EPW sextic associated to a Gushel-Mukai fourfold</i>	Algebraic Geometry Seminar, University of Strasbourg, France.
April 9, 2019	<i>The noncommutative K3 surface of a cubic fourfold and hyperkaehler geometry</i>	Seminar on Algebra, Geometry and Physics, Max-Planck Institute for Mathematics, Bonn, Germany.
March 28, 2019	<i>Stability conditions and the geometry of Fano varieties</i>	Oberseminar, Max-Planck Institute for Mathematics, Bonn, Germany.
March 18-20, 2019	<i>Rational curves of low degree on cubic fourfolds and stability conditions</i>	Workshop on Mirror Symmetry and Stability Conditions, Harvard University, Boston, USA.
March 15, 2019	<i>Twisted cubics on cubic fourfolds and stability conditions</i>	Algebraic Geometry Seminar, University of Angers, France.
December 21, 2018	<i>Cubic fourfolds and Categorical Torelli Theorem</i>	Welcome Home, Dipartimento di Matematica, Università degli Studi di Torino, Italy.
November 22, 2018	<i>Rational curves of low degree on cubic fourfolds and stability conditions</i>	Algebraic Geometry Seminar, ENS, Paris, France.
October 16, 2018	<i>Geometry of fourfolds with an admissible K3 subcategory</i>	EDGE Seminar, School of Mathematics, Edinburgh, UK.
September 21, 2018	<i>Geometry of fourfolds with an admissible K3 subcategory</i>	Columbia Algebraic Geometry Seminar, Columbia University, New York, USA.
July 6, 2018	<i>An introduction to the categorical Torelli Theorem for cubic fourfolds</i>	PhD Day, Dipartimento di Matematica, Università degli Studi di Milano, Italy.
July 2, 2018	<i>Twisted cubics on cubic fourfolds and stability conditions</i>	Institut of Mathematics, University of Mainz, Germany.
June 18-22, 2018	<i>Rational curves of low degree on cubic fourfolds and stability conditions</i>	Gael XXVI, Strasbourg, France.
April 21-22, 2018	<i>Rational curves of low degree on cubic fourfolds and stability conditions</i>	AMS Sectional Meeting - Section Geometry of Moduli Spaces, Northeastern University, Boston, USA.
February 20, 2018	<i>Classical and noncommutative Voevodsky’s conjecture for cubic fourfolds and Gushel-Mukai fourfolds</i>	EPFL Topology Seminar, Lausanne, Switzerland.
December 19, 2017	<i>Twisted cubics on cubic fourfolds and stability conditions</i>	Seminari di Natale, Dipartimento di Matematica, Università degli Studi di Milano, Italy.
October 5, 2017	<i>On the double EPW sextic associated to a Gushel-Mukai fourfold</i>	GPRT Seminar, Northeastern University, Boston, USA.

March 27, 2017	<i>Fourier-Mukai partners for general special cubic fourfolds</i>	MAGIC seminar, Imperial College, London, UK.
July 21, 2016	<i>Special cubic fourfolds and Fourier-Mukai partners</i>	Milano Junior Seminars in Algebraic Geometry, Dipartimento di Matematica, Università degli Studi di Milano, Italy
September 30, 2015	<i>Holomorphic symplectic manifolds and cone conjecture</i>	Algebraic Geometry Seminars, Dipartimento di Matematica, Università degli Studi di Torino, Italy.
August 2-14, 2015	<i>Introduction to the Birational Geometry of Hyperkaehler Manifolds</i>	Summer Course Moduli Spaces and Derived Categories, Palazzone in Cortona, Italy.
October 19, 2021 (upcoming)	<i>Serre-invariant stability conditions and cubic threefolds</i>	Algebraic Geometry seminar, Università di Roma Tor Vergata.
October 22, 2021 (upcoming)		IMPANGA, IM PAN Warsaw.
November 3, 2021 (upcoming)		Algebraic Geometry seminar, University of Leuven.
November 16, 2021 (upcoming)		Algebraic Geometry seminar, University of Chemnitz, Germany, online seminar.
December 13-17, 2021 (upcoming)		Conference “Geometry and Arithmetic of varieties with trivial canonical bundle”, Oslo.
May 11-13, 2022 (upcoming)		Conference “Bandoleros 2022”, Ankara, Turkey.
July 18-22, 2022 (upcoming)		ICM Satellite Conference “Integrable Systems and Geometry of Moduli Spaces”, Yaroslavl, Russia.

#### MINI-CORSI IN SCUOLE

Data	Titolo	Sede
December 14-15, 2020	Two hours online mini-course on “Bridgeland stability conditions and Kuznetsov components of Fano threefolds and fourfolds”.	Mini-school on “Moduli of sheaves on three- and four-folds”, organized by Justin Sawon, University of North Carolina at Chapel Hill.
June 5-12, 2022 (upcoming)	Mini-course about examples and applications.	School on “Stability conditions”, organized by Gilberto Bini, Claudio Fontanari (CIRM), Università di Trento.

#### SEMINARI IN READING SEMINARS

Data	Titolo	Sede
March 17 and 24, 2021	<i>Degenerations of hyperkahler manifolds: applications</i>	Reading Seminars on “ <i>Degenerations of varieties</i> ”, University of Milano.
January 10, 2020	<i>Riemann-Hilbert correspondence</i>	Reading Seminars on “ <i>D-modules and mixed Hodge modules</i> ”, University of Milano.
May 16, 2019	<i>Applications to enumerative geometry</i>	Reading Seminars on “ <i>Gromov-Witten invariants and quantum cohomology</i> ”, University of Bonn.
April 19, 2017	<i>Cubic fourfolds fibered in sextic del Pezzo surface</i>	Algebraic Geometry Seminars on “ <i>Rationality problems</i> ”, University of Milano.

October 6, 18, 26 and November 02, 30, 2016	<i>Gushel-Mukai varieties</i>	Five lectures, University of Milano.
March 09 and 15, 2016	<i>Some remarks concerning Voevodsky Conjecture</i>	Two lectures for the reading seminars on Noncommutative motives, University of Milano.

#### POSTERS

Data	Titolo	Sede
July 2, 2019	<i>Hyperkaehler geometry of a cubic fourfold via moduli spaces</i>	Conference on Derived Categories and Geometry in Positive Characteristic, Warsaw, Poland.
March 20, 2018	<i>Twisted cubics on cubic fourfolds and stability conditions</i>	School on Birational Geometry of Hypersurfaces, Gargnano del Garda, Italy.
October 14, 2017	<i>Geometry of Fourfolds with an Admissible <math>K3</math> Subcategory</i>	AGNES, Northeastern University, Boston, USA.
June 28, 2017	<i>Geometry of Fourfolds with an Admissible <math>K3</math> Subcategory</i>	GAEL XXV, University of Bath, UK.

#### ORGANIZZAZIONE DI EVENTI

Da Ottobre 2021, co-organizzo il seminario su Zoom “Derived Seminar” con A. Bayer, L. Flapan, E. Macrì, E. Shinder, X. Zhao.

Luglio 5-9, 2021: Géométrie Algébrique en Liberté XXVIII, Loughborough UK, co-organizzato con T.D. Guerreiro, A. Fleming, M. Fortuna, L. Marquand, M. Ungureanu, evento online.

Luglio 29, 2021: Workshop Algebraic Geometry in Milano, Dipartimento di Matematica F. Enriques, Milano, co-organizzato con L. Lombardi, L. Tasin.

Dicembre 17-18, 2019: Seminari di Natale 2019, Dipartimento di Matematica F. Enriques, Milano, co-organizzato con A. Garbagnati.

Giugno 17-21, 2019: Géométrie Algébrique en Liberté XXVII, IMAR, Bucharest, Romania, co-organizzato con V. Bertini, A. Fleming, J. Lai, M. Ungureanu, J. Van Zelm.

Maggio 10-11, 2018, Mini-workshop of Algebraic Geometry, Dipartimento di Matematica F. Enriques, Milano, co-organizzato con P. Stellari.

Luglio 21, 2016, Milano Junior Seminar in Algebraic Geometry, Dipartimento di Matematica F. Enriques, Milano, co-organizzato con M. Cantadore, M. Ornaghi.

#### ATTIVITA' DI REFERAGGIO

Referee per: Advances in Mathematics, Algebraic Geometry, Annales Scientifiques de l'Ecole Normale Supérieure, Communications in Algebra, Contributions to Algebra and Geometry, Epijournal de Géométrie Algébrique, International Journal of Mathematics, IMRN, Journal für die reine und angewandte Mathematik, Journal of Pure and Applied Algebra, Kyoto Journal of Mathematics, Mathematische Zeitschrift, Milan Journal of Mathematics, Proceeding of the American Mathematical Society.

Reviewer per: Mathematical Reviews, Zentralblatt-math.

Reviewer per due grant per il National Science Center, Poland.

## SUPERVISIONE DI DOTTORANDI

Ethan Robinett, University of California Santa Barbara, joint with Prof. Xiaolei Zhao, expected defence in 2022.
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## ATTIVITÀ DIDATTICA A LIVELLO UNIVERSITARIO IN ITALIA O ALL'ESTERO

Tutor per Geometria 1, Università degli studi di Milano, LT Matematica, Primo Semestre 2016-2017, 2017-2018, 2019-2020, 2020-2021 (21h), 2021-2022 (36 h).
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Tutor per Geometria 3, Università degli studi di Milano, LT Matematica, Primo Semestre 2020-2021 (39 h).
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Tutor per Geometria 2, Università degli studi di Milano, LT Matematica, Secondo Semestre 2015-2016, 2016-2017, 2017-2018.
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Tutor per Geometria Uno, Università degli studi di Torino, LT Matematica, Secondo Semestre 2013-2014.
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## PRODUZIONE SCIENTIFICA

### PUBBLICAZIONI SCIENTIFICHE

ARTICOLI SU RIVISTE
A. Perry, L. Pertusi, X. Zhao, <i>Stability conditions and moduli spaces for Kuznetsov components of Gushel-Mukai varieties</i> , to appear in <i>Geometry and Topology</i> , 47 pages (2019), arXiv:1912.06935.
L. Pertusi, S. Yang, <i>Some remarks on Fano threefolds of index two and stability conditions</i> , to appear in <i>IMRN</i> , DOI: 10.1093/imrn/rnaa387, 31 pages (2020), arXiv:2004.02798.
E. Brakkee, L. Pertusi, <i>Marked and labelled Gushel-Mukai fourfolds</i> , in <i>Rationality of Varieties</i> , 129-146, <i>Progr. Math.</i> 342, Birkhauser Basel (2021).
L. Pertusi, <i>Fourier-Mukai partners for very general special cubic fourfolds</i> , <i>Math. Research Letters</i> (1) 28 (2021), 213-243.
L. Pertusi, <i>On the double EPW sextic associated to a Gushel-Mukai fourfold</i> , <i>J. London Math. Soc.</i> (1) 100 (2019), 83-106.
M. Ornaghi, L. Pertusi, <i>Voevodsky's conjecture for cubic fourfolds and Gushel-Mukai fourfolds via noncommutative K3 surfaces</i> , <i>J. Noncommut. Geom.</i> (2) 13 (2019), 499-515.

TESI DI DOTTORATO
<i>Geometry of fourfolds with an admissible K3 subcategory</i> , Università degli studi di Milano (2018), <a href="http://dx.doi.org/10.13130/pertusi-laura_phd2018-12-19">http://dx.doi.org/10.13130/pertusi-laura_phd2018-12-19</a> .

PREPRINTS
S. Feyzbakhsh, L. Pertusi, <i>Serre-invariant stability conditions and Ulrich bundles on cubic threefolds</i> , 35 pages (2021), arXiv:2109.13549, submitted.
C. Li, L. Pertusi, X. Zhao, <i>Elliptic quintics on cubic fourfolds, O'Grady 10, and Lagrangian fibrations</i> , 42 pages (2020), arXiv:2007.14108, submitted.
C. Li, L. Pertusi, X. Zhao, <i>Twisted cubics on cubic fourfolds and stability conditions</i> , 28 pages (2018), arXiv:1802.01134, submitted.

IN PREPARAZIONE
C. Li, L. Pertusi, X. Zhao, <i>Derived categories of hearts on Kuznetsov components</i> .

L.Pertusi, E. Robinett, <i>Stability conditions on Kuznetsov components of Gushel-Mukai threefolds and Serre functor</i> .
H. Chen, L. Pertusi, X. Zhao, <i>Deformation theory and formality conjecture</i> .
E. Brakkee, C. Camere, A. Grossi, L. Pertusi, G. Saccà, A. Viktorova, <i>Singular symplectic varieties and Prym varieties</i> .

## LINGUE

Italiano (madrelingua), Inglese (fluente, FIRST Certificate B2), Francese (fluente, DELF B1 Certificate).
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## REFERENZE

Arend Bayer, University of Edinburgh, arend.bayer@ed.ac.uk. Manfred Lehn, University of Mainz, lehn@mathematik.uni-mainz.de. Emanuele Macrì, Université of Paris-Sud 11, emanuele.macri@universite-paris-saclay.fr. Paolo Stellari, Università degli studi di Milano, paolo.stellari@unimi.it.
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Data

05/10/2021

Luogo

Milano