UNIVERSITÀ DEGLI STUDI DI MILANO
selezione pubblica per n._1_ posto/i di Ricercatore a tempo determinato in tenure track (RTT)
per il settore concorsuale ___01/A2 - GEOMETRIA E ALGEBRA _____ ,
settore scientifico-disciplinare _ MAT/03 - GEOMETRIA _____
presso il Dipartimento di _____ Matematica Federigo Enriques_____,
(avviso bando pubblicato sulla G.U. n. __97_____ del _22/12/2023_____) Codice concorso ___5467__

Franco Rota
CURRICULUM VITAE

(N.B. IL CURRICULUM NON DEVE ECCEDERE LE 30 PAGINE E DEVE CONTENERE GLI ELEMENTI CHE IL CANDIDATO RITIENE UTILI AI FINI DELLA VALUTAZIONE.
LE VOCI INSERITE NEL FACSIMILE SONO A TITOLO PURAMENTE ESEMPLIFICATIVO E POSSONO ESSERE SOSTITUITE, MODIFICATE O INTEGRATE)

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	ROTA
NOME	FRANCO
DATA DI NASCITA	18/10/1990

TITOLI

TITOLO DI STUDIO
(indicare la Laurea conseguita inserendo titolo, Ateneo, data di conseguimento, ecc.)

01/09/2009 - 31/08/2014: Diploma, Istituto Universitario di Studi Superiori, Pavia,

01/09/2012 - 14/07/2014: Laurea Magistrale in Matematica, Universita degli studi di Pavia,

01/09/2009 - 31/08/2012: Laurea in Matematica, Universita degli studi di Pavia

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
(inserire titolo, ente, data di conseguimento, ecc.)

01/08/2014 - 02/08/2019: Ph.D Mathematics, University of Utah. Advisor: Aaron Bertram.

CONTRATTI DI RICERCA, ASSEGNI DI RICERCA O EQUIVALENTI
(per ciascun contratto stipulato, inserire università/ente, data di inizio e fine, ecc.)

01/09/2021 – presente: Research Associate, University of Glasgow (PI Michael Wemyss)

01/09/2019 - 31/08/2021: Hill Assistant Professor, Rutgers University (PI Lev Borisov)

Visiting positions:

10/09/2023 - 10/12/2023: Hausdorff Research Institute for Mathematics, Bonn

06/01/2013 - 10/06/2013: Universitetet i Bergen, Norway

ATTIVITÀ DIDATTICA A LIVELLO UNIVERSITARIO IN ITALIA O ALL'ESTERO
(inserire periodo [gg/mm/aa inizio e fine], anno accademico, ateneo, corso laurea, numero ore, ecc.)

- Tutor presso l'Universita' degli studi di Pavia dei seguenti corsi:
  - Complementi di analisi matematica 2 (Corso di Laurea in Fisica) (Autunno 2013);
  - Algebra Lineare (Autunno 2013);
  - Matematica (corso di Laurea in Biologia) (Autunno 2011).
- Docente titolare presso la University of Utah, Salt Lake City, UT, USA, dei seguenti corsi. Ogni corso prevede due lezioni da 80 minuti, oppure quattro da 50 minuti, ogni settimana, durante i semestri autunnali e primaverili (15 settimane). Il semestre estivo prevede un simile carico di insegnamento, distribuito su 6 ovvero 12 settimane.

  - Math 2270 - Linear algebra (Spr. 2019);
  - Math 1210 - Online Calculus I (Fall 2018);
  - Math 1090 - College algebra for business students (Fall 2014, Spr. 2015, Sum. 2018);
  - Math 1220 - Calculus II (Fall 2017);
  - Math 1210 - Calculus I (Spr. 2016);
  - Math 1060 - Trigonometry (Fall 2015);
- Esercitatore per il corso Math 1220 - Calculus II (Fall 2016) presso la University of Utah
- Docente titolare presso la Rutgers University, New Brunswick, NJ, USA, dei seguenti corsi, tutti rivolti a lower division undergraduate con l'eccezione di "Linear Optimization". Ogni corso prevede due lezioni da 80 minuti, oppure tre da 50 minuti, ogni settimana, durante i semestri autunnali e primaverili (14 settimane). Il semestre estivo prevede un simile carico di insegnamento, distribuito su 6 ovvero 12 settimane.
  - Math 250 - Introductory linear algebra (Semestre Estivo 2021).
  - Math 300 - Introduction to mathematical reasoning (Semestre autunnale 2020)
  - Math 354 - Linear optimization (due sezioni nel Semestre Primaverile 2020, e una nel Semestre Primaverile 2021), upper division undergraduate;
  - Math 251 - Multivariable calculus (Fall 2019, Fall 2020).
- Docente titolare (18 ore) ed esercitatore (6 ore) del corso di Teoria di Galois, Maths H4105/M5071, University of Glasgow. Honors Undergraduate program and Masters' of Science program.
- Supervisione di studenti:
  - Aliaksandra Novik, Master's student at EPFL (Lausanne), External committee member (Spring 2024)
  - Yushu Zhu, MSc masters' thesis "Hilbert schemes and Applications" (Summer 2022)
  - Maxwell Biggam, independent study: Abstract Algebra and Introduction to Category theory (2021-2023)
  - Olu Olorode, independent study: Abstract Algebra and Representation Theory (Summer 2020)

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

STRANIERI;
(inserire anno accademico, ente, corso, periodo, ecc.)

- Incarico di ricerca presso istituto di ricerca estero. Sede: University of Glasgow (Regno Unito), durata: 3 anni, tipologia di incarico: Research Associate, nel progetto " Enhancing Representation theory, Noncommutative Algebra and Geometry", Dal 01-09-2021 ad oggi

    - 10/09/2023 - 10/12/2023: Visitor all' Hausdorff Research Institute for Mathematics, Bonn, quale partecipante del Junior Trimester Program on Derived Categories, Hodge theory and Chow groups.

ORGANIZZAZIONE, DIREZIONE E COORDINAMENTO DI GRUPPI DI RICERCA NAZIONALI E INTERNAZIONALI, O PARTECIPAZIONE AGLI STESSI
(per ciascuna voce inserire anno, ruolo, gruppo di ricerca, ecc.)

- Partecipazione, quale studente di dottorato, al gruppo di ricerca presso la University of Utah finanziato dal grant NSF-FRG grant DMS 1663813 "FRG: Collaborative Research: Moduli Spaces, Birational Geometry, and Stability Conditions"

Ammontare del finanziamento: 162,929 USD

Durata del finanziamento: dal 01-08-2017 al 31-07-2021

Responsabili: Aaron Bertram

Website: https://www.nsf.gov/awardsearch/showAward?AWD_ID=1663813&HistoricalAwards=false

Dal 01-08-2017 al 02-08-2019

- Partecipazione, quale Research Associate, al gruppo di ricerca presso le Università di Glasgow, Edinburgo, e Sheffield, finanziato dal grant EPSRC "Enhancing Representation Theory, Noncommutative Algebra And Geometry Through Moduli, Stability And Deformations"

Ammontare del finanziamento: 2,716,102 GBP

Durata del finanziamento: dal 01-08-2018 al 31-07-2024

Responsabili: Prof. I. Gordon, Prof. A. Smoktunowicz, Prof. A. Bayer, Prof. G. Bellamy, Prof. T. Bridgeland, Prof. M. Wemyss.

Website: https://gow.epsrc.ukri.org/NGBOViewGrant.aspx?GrantRef=EP/R034826/1

Dal 01-09-2021 al 31-08-2024

- Partecipazione alle attività di ricerca del Junior Trimester Program "Algebraic geometry: derived categories, Hodge theory, and Chow groups" presso l' Hausdorff Research Institute for Mathematics, Bonn, finanziato dal grant ERC "Modern Aspects of Geometry: Categories, Cycles and Cohomology of Hyperkähler Varieties"

Durata del finanziamento: 01.09.2020 - 31.08.2026

Responsabili: Prof. O. Debarre, Prof. D. Huybrechts, Prof. E. Macri', Prof. C. Voisin

Website (JTP) : https://www.him.uni-bonn.de/programs/future-programs/future-junior-trimester-programs/jtp-algebraic-geometry/description/

Website: https://www.erc-hyperk.org/

Dal 11-09-2023 al 10-12-2023

ATTIVITÀ DI RELATORE A CONGRESSI E CONVEGNI NAZIONALI E INTERNAZIONALI
(inserire titolo congresso/convegno, data, ecc.)

Relatore su invito a conferenze:

- Upcoming: Ricercatori in Algebra e Geometria, U. of Milan, 25–27/09/2024

- Non-commutative deformations and contractibility of rational curves, STEW, University of Oslo, 11–15/12/2023

- Towards Homological mirror symmetry for log del Pezzo surfaces, GLEN, U. of Liverpool, 21–22/09/2023

- The stability manifold of local orbifold elliptic quotients, AMS Special Session on Cohomological Field Theories and Wall Crossing, Denver, CO, 15-18/01/2020

- Bridgeland Stability and Mirror Symmetry for Orbifold Elliptic Quotients, GAEL, 17-21/06/2019

- Bridgeland stability on smooth stacks and Kleinian singularities, FRG Workshop on Moduli Spaces of sheaves and Bridgeland Stability, UIC, 07-09/12/2018

Contributed talk a conferenze:

- Towards homological mirror symmetry for log del Pezzo surfaces, Nordfjordeid, 15/08/2023

- Homological mirror symmetry and log del Pezzo surfaces, School on Computational Geometry, TU Kaiserslautern, 28/11/2022–1/12/2022

- Moduli of complexes on a Veronese double cone, New Perspectives on Hyperkähler Manifolds, Levico Terme, 13–17/06/2022

- Full exceptional collection for anticanonical log del Pezzo surfaces, Grothendieck ring and Derived category: a gathering, Turin 27–28/04/2022

Relatore su invito a seminari:

2024

- Upcoming: Harvard, CMSA AG in String Theory, May

- Upcoming: U. of Sheffield, April

- Upcoming: Geometry and Mathematical Physiscs Seminar, U. of Birmingham, 19/03

- Upcoming: EPFL Lausanne 06/02

- Hodge theory and categorical Torelli for double covers, Roma Tre University 11/01

2023

- Non-commutative deformations and contractibiliy of rational curves, SAG, HIM Bonn, 02/10/23

- Del Pezzo surfaces with quotient singularities, GEARS Seminar, Heriot-Watt University, 16/05/23

- Homological mirror symmetry and log del Pezzo surfaces, Algebra and Number Theory Seminar, Queen Mary University London, 31/03/23

2022

- Full exceptional collection for anticanonical log del Pezzo surfaces, University of Nottingham, 31/03/22

- Full exceptional collection for anticanonical log del Pezzo surfaces, Algebra Seminar, Washington University in St. Louis, 09/02/22

2021

- Motivic Semi-orthogonal Decompositions for Abelian Varieties, U. of Edinburgh, 27/10/21

- Moduli of complexes of Del Pezzo threefolds, AG Arxiv Club, Unicamp, 09/07/21

- Motivic semiorthogonal decompositions for abelian varieties, Geometry seminar, U. of Kansas, 09/04/21

2020

- Kuznetsov components of Fano threefolds and moduli spaces, Harvard U., 27/10/20

- Characteristic classes and stability conditions for projective Kleinian orbisurfaces, Algebra Seminar, University of Oregon, 21/05/20

- Moduli spaces on the Kuznetsov component of Fano threefolds of index 2, Valley Geometry Seminar, UMass Amherst, 24/04/20

2019

- Moduli spaces on the Kuznetsov component of Fano threefolds of index 2, Princeton U., 12/11/19

- The stability manifold of local orbifold elliptic quotients, Universit´a di Pavia, 22/07/19

CONSEGUIMENTO DI PREMI E RICONOSCIMENTI NAZIONALI E INTERNAZIONALI PER ATTIVITÀ DI RICERCA
(inserire premio, data, ente organizzatore, ecc.)

Fellowship from the Hausdorff Institute for Mathematics in Bonn, to participate in the Junior Trimester Program ``Algebraic geometry: derived categories, Hodge theory, and Chow groups" (9900 EUR)

PRODUZIONE SCIENTIFICA

PUBBLICAZIONI SCIENTIFICHE
(per ciascuna pubblicazione indicare: nomi degli autori, titolo completo, casa editrice, data e luogo di pubblicazione, codice ISBN, ISSN, DOI o altro equivalente)

Preprints:

Hannah Dell, Augustinas Jacovskis, and Franco Rota. Cyclic covers: Hodge theory and categorical Torelli theorems. arXiv e-prints, page arXiv: 2310.13651, October 2023.

Riccardo Moschetti, Franco Rota, and Luca Schaffler. The non-degeneracy invariant of Brandhorst and Shimada families of Enriques surfaces. arXiv e-prints, page arXiv:2309.14981, September 2023.

Bronson Lim and Franco Rota. Motivic Semiorthogonal Decompositions for Abelian Varieties. arXiv e-prints, page arXiv:2102.13639, February 2021.

Pubblicazioni:

Giulia Gugiatti and Franco Rota. Full exceptional collections for anticanonical log del Pezzo surfaces. IMRN, Volume 2023, Issue 21, November 2023, Pages 18803–18855,

Bronson Lim and Franco Rota. Riemann-Roch coefficients for Kleinian orbisurfaces. Bolletino dell Unione Mat. Ital., 1-13, 2023.

Marin Petkovic and Franco Rota. A note on the Kuznetsov component of the Veronese double cone. J. Pure Appl. Algebra, 227(3):Paper No. 107214, 2023.

Matteo Altavilla, Marin Petkovic, and Franco Rota. Moduli spaces on the Kuznetsov component of Fano threefolds of index 2. Epijournal Geom. Algebrique, 6:Art. 13, 31, 2022.

Riccardo Moschetti, Franco Rota, and Luca Schaffler. A computational view on the non-degeneracy invariant for Enriques surfaces. Experimental Mathematics, 0(0):1--22, 2022.

Franco Rota. The stability manifold of local orbifold elliptic quotients. J. London Math. Soc., 106(3):2268--2304, 2022.

Bronson Lim and Franco Rota. Characteristic classes and stability conditions for projective Kleinian orbisurfaces. Math. Z., 300(1):827--849, 2022.

Franco Rota. Some Quot schemes in tilted hearts and moduli spaces of stable pairs. Internat. J. Math., 32(13): Paper No. 2150098, 34, 2021.

Franco Rota. Moduli spaces of sheaves: generalized Quot schemes and Bridgeland stability conditions. PhD thesis, University of Utah (2019).

Stefano Filipazzi and Franco Rota. An example of Berglund-Hubsch mirror symmetry for a Calabi-Yau complete intersection. Le Matematiche (Catania), 73(1):191--209, 2018.

ATTIVITA' DI SERVIZIO

Lecture series:

• Upcoming: Derived categories in algebraic geometry, 2024 Eastern Africa Algebra Research Group, Kampala, December 2024

Events organized:

• Upcoming: Conference in Cetraro (07-12/07/2025) (with W. Hara, P. Stellari, M. Wemyss)

• Workshop on Enriques surfaces, University of Turin, 06-07/12/23 (with R. Moschetti and L. Schaffler)

• Workshop on Singularities and mirror symmetry, University of Glasgow, 05-07/12/22 (with W. Hara)

• A day of geometry in Glasgow, University of Glasgow, 24/08/22 (with W. Hara)

• E-RNG meeting, University of Glasgow, 11-12/05/22 (with W. Hara)

Seminars organized:

• Wee Math Seminar, Glasgow (2021-2023)

Franco Rota Curriculum vitae

• Algebra seminar, Rutgers (Fall 2020)

• AnGeLS (Algebra and Geometry Learning Seminar), Rutgers (Fall 2019)

• Coordinator of student run learning seminars on various topics: derived categories, Calabi-Yau manifolds, and Bridgeland stability conditions (2015-2018)

Review:

• Peer review for IMRN, Applied Categorical Structures,Advances in Geometry, Math Z.

• Reviewer for Proceedings of Nottingham AG seminar

• AMS Math Reviewer

• MAA Online Book Reviews

Expository writing:

1. Configurations of points in algebraic geometry, Quaderni Borromaici, 6, 2019.

Other:

• AWM mentor for undergraduate students, University of Utah Math department (Fall 2018);

• Mentoring for incoming PhD students, University of Utah Math department (Fall 2018);

• Graduate student of reference for perspective students in algebraic geometry and for perspective international students (2017-2019);

• Webmaster for the Graduate Student Advisory Committee of the maths department (2017-2019);

• Tutor at T. Benny Rushing Math Tutoring Center, University of Utah (2014-2016).

PARTECIPAZIONE A CONFERENZE INTERNAZIONALI;

2023

STEW: Workshop on Stability and Enumerative Geometry, Oslo (11–15/12)

New perspectives on Enriques surfaces, Turin (06–07/12)

Birational Workshop, HIM Bonn (20–24/11)

Derived Workshop, HIM Bonn (06–10/11)

GLEN Workshop, Liverpool (21–22/09)

School: K3 surfaces, hyperkhler manifolds, and cubic fourfolds, HIM Bonn (11–15/09)

Summer School: Higher structures in Algebra and Geometry, Nordfjordeid (13–18/08)

Derived Categories, Moduli Spaces, and Counting Invariants, Imperial College, London (3-7/07)

GLEN workshop: Derived Categories, Hodge theory and Singularities, Sheffield (28–30/06)

AMS MRC on Derived categories, Arithmetic and Geometry, Java Center, NY (4–10/06)

Mini-Workshop on Higher categorical methods in algebra and geometry, Hamburg (22–24/03)

2022

Workshop on Singularities and mirror symmetry, Glasgow (5–7/12)

School on computational geometry, TU Kaiserslautern (28/11–1/12)

Young researchers in Algebra and Geometry, Trieste (28–30/09)

Noncommutative Shapes, Antwerp (12–16/09)

Derived Categories, Moduli Spaces, and Hyperkähler Varieties, University of Michigan (1–5/08)

New Perspectives on Hyperkähler Manifolds, Levico Terme (13–17/06)

Bridges between representation theory and algebraic geometry, Leeds (24–27/05)

Grothendieck ring and Derived category: a gathering, Turin (27–28/04)

A day of tropical geometry, St. Andrews (11/04)

Moduli, mirrors and M-theory in the Midlands, Birmingham (4–7/04)

2020

WAGS, Pomona (online) (13–14/11)

AGNES, Stony Brook (online) (23–25/10)

Joint Mathematics Meetings, Denver (15–19/01)

2019

 FRG Workshop on Stability, Moduli Spaces and Applications, UIC (6–8/12)

WAGS, University of Utah (2–3/11)

AGNES, Boston College (20–22/09)

Workshop on Derived Categories, Moduli Spaces and Deformation Theory, Cetraro (24–28/06)

GAEL, University of Bucharest (17–21/06)

Workshop: Recent Progress in Moduli Theory, MSRI (6–10/05)

WAGS, UC Berkeley (13–14/04)

2018

FRG Workshop on Moduli Spaces of sheaves and Bridgeland Stability, UIC (7–9/12)

WAGS, Oregon State University (6–7/10)

Yamabe symposium, UMN, Minneapolis (28–30/09)

Crossing the walls in enumerative geometry, Snowbird (21/05–1/06)

Midwest Algebraic Geometry Graduate Conference, UIC, Chicago (25–27/05)

Workshop: semiorthogonal decompositions, stability conditions and sheaves of categories, Toulouse (2–5/05)

WAGS, San Francisco State University (17–18/03)

2017

Moduli of sheaves and strange duality, Penn State University (December)

WAGS, UCLA, Los Angeles (14–15/10)

Geometry of moduli spaces, San Diego (May)

WAGS, University of British Columbia, Vancouver (8–9/04)

2016

WAGS, Colorado State University, Fort Collins (October)

New methods in birational geometry, Institut de Mathematique de Toulouse (22/06–1/07)

Stability conditions on triangulated categories and geometric applications, Nordfjordeid (13–17/06)

Local and global methods in algebraic geometry, UIC, Chicago (12–15/05)

Complex algebraic geometry in San Diego, UCSD, La Jolla (15–18/01)

2015

WAGS, University of Washington, Seattle (17–18/10)

AMS Sum. Institute, Salt Lake City (13–31/07)

PRAGMATIC international school, Universit´a degli Studi di Catania (22/06–10/07)

WAGS, UC Davis (28/02–1/03)

Data   03/01/2024   Luogo   Alme' (BG)