

Curriculum Vitae

Federico Caucci

born 21th December 1991 in Frascati (Rome), Italy.

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Current Position

Oct/2023 - : Postdoc, Università di Ferrara.

Employments

Apr/2021 - Mar/2023: Postdoc, Università di Milano.

Apr/2020 - Mar/2021: Postdoc “Paolo de Bartolomeis”, Università di Firenze.

Education

Nov/2016 - Jan/2020: Sapienza Università di Roma, Ph.D. program in Mathematics.

Classification: with honors. Graduation date: 20/01/2020.

Thesis: “The basepoint-freeness threshold, derived invariants of irregular varieties, and stability of syzygy bundles”.

Advisor: Prof. Giuseppe Pareschi.

Nov/2013 - Mar/2016: Università di Pisa, Master Degree in Mathematics.

Grade: 110/110 cum laude. Graduation date: 11/03/2016.

Thesis: “The generic vanishing theorem of Green and Lazarsfeld”.

Advisor: Prof. Rita Pardini.

Sep/2010 - Oct/2013: Università di Roma Tor Vergata, Bachelor Degree in Mathematics.

Grade: 107/110. Graduation date: 23/10/2013.

Research Interests

Algebraic Geometry, especially abelian and irregular varieties, derived categories of projective varieties, Fourier-Mukai transforms.

Publications and Preprints

1. F. Caucci, Higher order embeddings via the basepoint-freeness threshold, (2024), to appear in **Proc. Amer. Math. Soc.**
2. F. Caucci, Syzygies of Kummer varieties, **Trans. Amer. Math. Soc.** 377 (2024), no. 2, 1357-1370.
3. F. Caucci and L. Lombardi, Irregular fibrations of derived equivalent varieties, preprint arXiv:2207.14081 (2022), submitted.
4. F. Caucci, L. Lombardi and G. Pareschi, Derived invariance of the Albanese relative canonical ring, **Advances in Mathematics** 419 (2023), Paper No. 108965, 47 pp.
5. F. Caucci, Paracanonical base locus, Albanese morphism, and semi-orthogonal indecomposability of derived categories, preprint arXiv:2110.06795 (2021), submitted.
6. F. Caucci and M. Lahoz, Stability of syzygy bundles on abelian varieties, **Bull. Lond. Math. Soc.** 53 (2021), no. 4, 1030-1036.
7. F. Caucci, The basepoint-freeness threshold and syzygies of abelian varieties, **Algebra & Number Theory** 14 (2020), no. 4, 947-960.
8. F. Caucci and G. Pareschi, Derived invariants arising from the Albanese map, **Algebraic Geometry** 6 (2019), no. 6, 730-746.
9. F. Caucci, Y. Cho and L. Rizzi, On dominant rational maps from a very general complete intersection surface in \mathbf{P}^4 , **Le Matematiche** 72 (2017), no. 2, 183-194.

Visits

19/11/2023 - 25/11/2023: Research visit at Universitat de Barcelona,
invited by M. Lahoz.

25/03/2019 - 31/05/2019: Predoctoral research stay at Universitat de Barcelona,
invited by M. Lahoz.

Topic: Bridgeland stability conditions and abelian varieties.

Seminar Talks

2024: Università di Bologna.

2023: Università di Ferrara, Universitat de Barcelona.

2022: Università di Roma Tre, École Polytechnique Fédérale de Lausanne.

2021: Università di Milano.

2020: Università di Firenze, Università di Milano, The City University of New York.

2019: Universitat de Barcelona, Università di Roma Tor Vergata, Sapienza Università di Roma.

2018: Sapienza Università di Roma (PhD students seminar).

Invited Talks at Conferences

30/06/2022 - 01/07/2022: “Derived Categories and Birational Geometry”,
Università di Milano.

27/04/2021 - 30/04/2021: “Giornate di Geometria Algebrica ed Argomenti Correlati XV”,
Palazzo Feltrinelli, Gargnano (Università di Milano).

Conferences Organized

11/11/2021 - 12/11/2021: Mini-workshop “Singular Irreducible Symplectic Varieties”,
Università di Milano (co-organized with A. Barbieri and P. Stellari).

Other Activities

Referee for Advances in Mathematics, Annali di Matematica Pura ed Applicata, Journal of
Pure and Applied Algebra, Mathematische Zeitschrift.

Reviewer for zbMATH.

Languages

Italian (native language),
English (good knowledge),
French (basic knowledge).

Date: 05/04/2024