Guglielmo Nocera

Personal information

First name	Guglielmo
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Citizenship	Italian
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Position

2022 – 2027   **Postdoctoral researcher in Mathematics**, *Institut des Hautes Études Scientifiques (IHÉS)*
funded by the Simons Collaboration Program on Perfection in Algebra, Geometry, and Topology, supervised by Dustin Clausen

2022 – 2024   **CNRS postdoctoral researcher in Mathematics**, *Université Sorbonne Paris Nord (Paris 13)*, LAGA, Équipe Topologie Algébrique
funded by the ERC Starting Grant *Foundations of motivic real K-theory* held by Yonatan Harpaz

PhD

2018–2022   **PhD Student in Mathematics**, *Scuola Normale Superiore of Pisa / Université de Strasbourg*

Thesis   *A study of the spherical Hecke category via derived geometry*, discussed on July 8th, 2022

Advisors   Dr. Mauro Porta (Université de Strasbourg) and Prof. Gabriele Vezzosi (Università di Firenze)

Coadvisorship supervisors   Prof. Angelo Vistoli (Scuola Normale Superiore di Pisa) and Carlo Gasbarri (University of Strasbourg)

Education

2016–2018   **MSc Degree in Mathematics**, *University of Pisa and Scuola Normale Superiore*, Pisa, *110/110 cum laude*
Master thesis "Classifying spaces and groupoids". Supervisor: Prof R. Benedetti (Università di Pisa)

2013–2016   **BSc Degree in Mathematics**, *University of Pisa*, Pisa, *110/110 cum laude*
Bachelor thesis "Topology of constant curvature spaces". Supervisor: Prof. R. Frigerio (Università di Pisa)

2008–2013   **Diploma di Maturità scientifica**, *Liceo scientifico Ulisse Dini*, Pisa, *100/100 cum laude*
High School Diploma.

Publications and preprints

2022   **The derived Brauer map via twisted sheaves**, *with Michele Pernice, Journal of Homotopy and Related Structures, 18, p. 369-396 (2023)*

2021   **Whitney stratifications are conically smooth**, *with Marco Volpe, Selecta Mathematica New Ser. 29, 68 (2023)*

2020	**A model for the $\mathbb{E}_3$ fusion-convolution product of constructible sheaves on the affine Grassmannian**, https://arxiv.org/abs/2012.08504, preprint

Teaching and service

January–February 2024	**Teaching assistant**, *Master (M1) course "Advanced Linear Algebra"*, Université Sorbonne Paris Nord
January–February 2024	**Teaching assistant**, *Master (M2) course "Homotopy II"*, Université Sorbonne Paris Nord
2018/2019	**Tutor**, *undergraduate course "Complements of Mathematics" (Advanced Analysis)*, Scuola Normale Superiore di Pisa

Invited talks

25 June 2024	**Assembly maps via hermitian K-theory**, *The interplay between geometric group theory and K-theory (short talk)*, University of Southampton
27 May 2024	**The E3-structure on the spherical category of a reductive group**, *Séminaire géométrie complexe et groupes algébriques*, Institut Élie Cartan de Lorraine, Nancy Invited by Auguste Hébert
13 September 2023	**Study of the derived Brauer map via twisted sheaves**, Giornate di Geometria Algebrica e Argomenti Correlati, Cetraro (Italy)
15 February 2023	**The $\mathbb{E}_3$-structure on the spherical category of a reductive group**, Après-midi parisienne de topologie algébrique 2022-2023, Université Paris 7
7 February 2023	**The $\mathbb{E}_3$-structure on the spherical category of a reductive group**, SISSA, Trieste invited by Nicolò Sibilla
13 January 2023	**Whitney stratifications are conically smooth**, Université Paris 7 invited by Sylvain Douteau
22 December 2022	**The Exodromy Theorem and applications**, *ItaCa 2022, Italian Seminar in Category Theory*, University of Pisa
23 September 2022	**The Exodromy Theorem**, *Categories and Companions Symposium*, Macquarie University (online), invited by Nicola di Vittorio https://categories-and-companions.github.io/
28 June 2022	**Whitney stratifications and conically smooth structures**, *ALPE Seminar*, Université de Toulouse, invited by Joost Nuiten
21 February 2022	**Whitney stratifications and conically smooth structures**, *Seminar for the team "Analyse Algébrique" in Paris*, IMJ-PRG Paris, invited by Marco Robalo
27 January 2022	**Exodromy and factorization of the affine Grassmannian**, *Higher Topoi and Exodromy seminar*, University of Regensburg, invited by Denis-Charles Cisinski
21 December 2021	**$\mathbb{E}_k$-centers of monoidal ∞-categories**, *ItaCa 2021, Italian Seminar in Category Theory*, University of Genova
8 December 2021	**$\mathbb{E}_3$-monoidal structure on the spherical Hecke category**, UC Berkeley, invited by Peter Haine
10 June 2021	**$\mathbb{E}_k$-centers of monoidal ∞-categories**, *Categories and Companions Symposium*, Macquarie University (online), invited by Nicola di Vittorio http://web.science.mq.edu.au/groups/coact/seminar/CaCS2021/
24 April 2018	**Classifying Topoi and Groupoids**, University of Regensburg, invited by Prof. Niko Naumann

Visits

14 November - 2 December 2022	**Visit at Max-Planck-Institut für Mathematik in Bonn**, Thematic Trimester "Spectral Methods in Algebra, Geometry and Topology"
1 April-31 May 2022	**Research Visit at MIT**, invited by prof. Roman Bezrukavnikov
25 January-11 March 2022	**Research Visit at Regensburg University**, collaboration with Marco Volpe, invited by Prof. Denis-Charles Cisinski
29 November - 11 December 2021	**Research visit at UC Berkeley**, collaboration with Peter Haine and Mark Macerato, invited by Peter Haine
5 October-14 November 2021	**Research visit at University of Milan Statale**, collaboration with Federico Binda and contribution to the reading seminar *Geometrization of the Local Langlands Conjecture* organized by Fabrizio Andreatta

Reading and research groups (organized)

2023, ongoing	**Factorization algebras and chiral algebras**, *online*, research group with Carlo Buccisano, Šarunas Kaubrys, Alyosha Latyntsev and Hugo Pourcelot
Spring 2023	**Factorization algebras and factorization homology**, *LAGA, Université Paris 13*, organized with Hugo Pourcelot and Jakob Ulmer
December 2020 – July 2021	**Derived Formal Moduli Problems**, *Scuola Normale Superiore / University of Pisa*, reading seminar based on Jacob Lurie's "Derived Algebraic Geometry X", organized with Federico Conti, Julian Demeio, Michele Pernice and Morena Porzio
Jan 2019-June 2020	**Fourier-Mukai Transform in Algebraic Geometry**, *Scuola Normale Superiore / University of Pisa*, reading seminar based on Huybrecht's book, organized with Federico Conti, Michele Pernice and Chiara Spagnoli

Selected Conferences (attended)

26 February -1 March 2024	**Nearby cycles in Derived Geometry**, *Universität Regensburg, Department of Mathematics*, `https://sfb-higher-invariants.app.uni-regensburg.de/index.php?title=Nearby_cycles_and_derived_geometry`
16-20 October 2023	**Categories and stacks in algebraic geometry and algebraic topology CATS 7**, *CIRM Luminy, Marseille*, `https://conferences.cirm-math.fr/2849.html`
10-21 July 2023	**Recent Advances in Algebraic K-theory**, *IHES*, `https://indico.math.cnrs.fr/event/8837/`
23-27 January 2023	**Chromatic Homotopy, K-Theory and Functors**, *CIRM Luminy, Marseille*, `https://conferences.cirm-math.fr/2339.html`
12-16 September 2022	**Motives in Ratisbona**, *University of Regensburg*, `https://www.uni-regensburg.de/mathematics/motives2022/startseite/index.html`
2020/2021	**Geometric Langlands Office Hours**, *online seminar organized by Dennis Gaitsgory*
20-24 September 2021	**The Six-Functor Formalism and Motivic Homotopy Theory**, *University of Milan*, `https://sites.google.com/view/summer-school-motivic/home`
23-27 August 2021	**Masterclass in Topological Field Theory and Factorization Homology**, *University of Copenhagen*, `https://www.math.ku.dk/english/calendar/events/topological-field-theories-factorization-homology/`

3-7 June 2019	**New perspectives in Gromov-Witten theory**, *IMJ-PRG, Sorbonne Université, Paris, Campus Pierre et Marie Curie*
8-12 Apr 2019	**Hot Topics: Recent Progress in Langlands Program**, *MSRI Berkeley*
25-29 Mar 2019	**Derived algebraic geometry and its applications**, *MSRI Berkeley*
27-30 Nov 2018	**Young perspectives in deformation theory**, *Politecnico di Torino*, https://sites.google.com/site/ypdt2018/
18-20 Jul 2018	**Accessible Categories and their connections**, *University of Leeds, School of Mathematics*, `http://www1.maths.leeds.ac.uk/~pmtadb/` `AccessibleCategories2018/index.html`
4-6 July 2018	**The Arithmetic of Derived Categories**, *University of Trento*, `https://` `folk.uib.no/sti004/Trento.html`
27-29 June 2018	**Toposes in Como**, *University of Insubria, Como*, Organized by Prof. O. Caramello
12-16 Mar 2018	**Masterclass in tensor triangular geometry and equivariant stable homotopy theory**, *University of Copenhagen*, `https://www.math.ku.dk/` `english/research/conferences/2018/tensor-triangular-geometry/`

Languages

Italian	**native**
English	**C1**
French	**B2**
German	**B2**
Spanish	**B2**