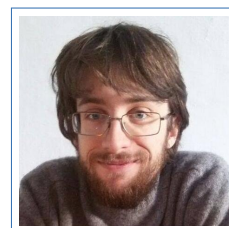# Francesco Genovese

Curriculum Vitae

Dipartimento di Matematica "F. Enriques"
Università degli Studi di Milano
Via Cesare Saldini 50, 20133 Milano, Italy
✉ *francesco.genovese@unimi.it*

Personal data

Citizenship	Italian

Positions

February 2023 - January 2024	Postdoc at University of Milan, supervisor Prof. Paolo Stellari
September 2021 - December 2022	Postdoc at Charles University in Prague, supervisor doc. RNDr. Jan Šťovíček
May 2019 - July 2021	Postdoc at University of Antwerp, supervisor Prof. Wendy Lowen
May 2017 - April 2019	Postdoc at University of Hasselt, supervisor Prof. Michel Van den Bergh
September 2016 - April 2017	Postdoc at the Mathematical Institute of the University of Bonn.

Education

November 2012 - December 2015	**Ph.D. in Mathematics**, *University of Pavia*, Mark: Ottimo. Thesis: *Quasi-functors as lifts of Fourier-Mukai functors: the uniqueness problem*, advisor Prof. Alberto Canonaco. Thesis defended on 1 December 2015.
October 2009 - April 2012	**Laurea Magistrale (M.Sc.) in Mathematics**, *University of Pavia*, Mark: 110/110 cum laude. Thesis: *Dg-enhancements of triangulated categories and the uniqueness problem of dg-lifts*, advisor Prof. Alberto Canonaco. Thesis defended on 17 April 2012.
October 2006 - February 2010	**Laurea Triennale (B.Sc.) in Mathematics**, *University of Pavia*, Mark: 110/110 cum laude. Thesis: *Il problema delle estensioni e la coomologia dei gruppi*, advisor Prof. Ludovico Pernazza. Thesis defended on 18 February 2010.
October 2006 - December 2009	Student at *Istituto Universitario di Studi Superiori*, Pavia.

October 2006 - July 2016	Member of *Collegio Fratelli Cairoli*, Pavia.

Research interests

Homological algebra, category theory and their applications to (non-commutative) algebraic geometry. In particular, triangulated categories and their enhancements: dg-categories, A_∞-categories; t-structures; deformations of triangulated categories, derived categories of algebraic varieties, Fourier-Mukai functors.

Publications and preprints

2022	T-structures on dg-categories and derived deformations, joint with Wendy Lowen and Michel Van den Bergh. Preprint arXiv:2212.12564 [math.CT], 2022
2022	Uniqueness of dg-lifts via restriction to injective objects. Preprint arXiv:2211.08550 [math.AG], 2022
2022	T-structures on unbounded twisted complexes. Preprint arXiv:2206.12724 [math.CT], 2022
2022	A derived Gabriel-Popescu theorem for t-structures via derived injectives, joint with Julia Ramos González. *International Mathematics Research Notices*, 2022
2021	T-structures and twisted complexes on derived injectives, joint with Wendy Lowen and Michel Van den Bergh. *Adv. Math.*, **387**:Paper No. 107826, 70, 2021.
2017	Adjunctions of quasi-functors between dg-categories, *Applied Categorical Structures* **25** (2017), no. 4, 625–657
2016	The uniqueness problem of dg-lifts and Fourier-Mukai kernels, *J. Lond. Math. Soc. (2)* **94** (2016), no. 2, 617–638

Talks

14 November 2022	Invited talk *Towards the homotopy category of derived injectives*, Algebra Seminar, Charles University
27 January 2022	Invited talk *A derived Gabriel-Popescu theorem for t-structures*, FD Seminar
23 November 2021	Invited talk *Derived injective objects and some applications*, MALGA Seminar Padova-Verona
28-30 June 2021	Contributed talk *A derived Gabriel-Popescu theorem for t-structures*, Toposes Online

20 December 2019	Invited talk *t-structures and twisted complexes on derived injectives*, Department of Mathematics, University of Pavia
5 December 2018	Invited talk *t-structures and twisted complexes on derived injectives*, Algebraic Geometry Seminar, University of Liverpool
16 June 2017	Invited talk *Adjunctions of quasi-functors between dg-categories*, Algebra Seminar, University of Antwerp
25 May 2016	Invited talk *Il problema dell'unicità dei nuclei di Fourier-Mukai e dei dg-lift*, Giornate di Geometria Algebrica ed Argomenti Correlati XIII, Catania.
17 March 2016	Invited talk *The uniqueness problem of Fourier-Mukai kernels and dg-lifts*, Algebraic Geometry Seminar, University of Warsaw.
22 December 2015	Invited talk *Quasi-functors as lifts of Fourier-Mukai functors: the uniqueness problem*, Seminari di Natale, University of Milan.
15 June 2015	Contributed talk *Dg-lifts and uniqueness of Fourier-Mukai kernels*, 2014-2015 Warwick EPSRC Symposium: Fourier-Mukai, 34 years on.

Teaching experience

2021-2022	Master course *Differential graded categories*, Charles University, Prague.
2020-2021	Exercise sessions for the course *Lineaire Algebra* given by Prof. Dr. Alain Verschoren, Bachelor in Computer Science, University of Antwerp.
2019-2020	Exercise sessions for the course *Lineaire Algebra* given by Prof. Dr. Alain Verschoren, Bachelor in Computer Science, University of Antwerp.
2014-2015	Teaching seminars for the course *Algebra 2* given by Prof. Paola Frediani, University of Pavia.
2013-2014	Teaching seminars for the course *Algebra 2* given by Prof. Maurizio Cornalba, University of Pavia.
2012-2013	Teaching seminars for the course *Istituzioni di geometria* given by Prof. Paola Frediani, University of Pavia.
2008-2009	Tutoring for the course *Matematica*, Corso di Laurea in Scienze Naturali, University of Pavia.

Outreach

I participate in the Italian science communication project *Meet Science* on YouTube, where we interview Italian scientists and academics, with the goal of spreading and communicating their activities to the general public.

Languages

Italian	Mothertongue

English	Advanced	*First Certificate in English, Grade A, 2006*
French	Upper intermediate	*DELF 2nd degré, 2005*
Dutch	Upper intermediate	
German	Beginner	
Czech	Intermediate	

Milano, February 12, 2023