Francesco

Curriculum Vitae

Genovese Universiteit Antwerpen, Campus Middelheim
Middelheimlaan 1, 2020, Antwerpen Middelheimlaan 1, 2020 Antwerpen Belgium



Personal data

Birth Pavia, 25 December 1987

Citizenship Italian

Positions

May 2019 - July Postdoc at University of Antwerp, supervisor Prof. Wendy Lowen 2021

May 2017 - April Postdoc at University of Hasselt, supervisor Prof. Michel Van den Bergh 2019

September 2016 - Postdoc at the Mathematical Institute of the University of Bonn. April 2017

Education

November 2012 - Ph.D. in Mathematics, University of Pavia, Mark: Ottimo.

December 2015 Thesis: Quasi-functors as lifts of Fourier-Mukai functors: the uniqueness problem, advisor Prof. Alberto Canonaco. Thesis defended on 1 December 2015.

October 2009 - Laurea Magistrale (M.Sc.) in Mathematics, University of Pavia,

April 2012 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 - Laurea Triennale (B.Sc.) in Mathematics, University of Pavia, Mark:

February 2010 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 -Student at Istituto Universitario di Studi Superiori, Pavia.

December 2009 October 2006 - Member of Collegio Fratelli Cairoli, Pavia.

July 2016

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

- 2021 A derived Gabriel-Popescu theorem for t-structures via derived injectives, joint with Julia Ramos González, preprint arXiv:2105.02561 [math.CT]
- 2019 T-structures and twisted complexes on derived injectives, joint with Wendy Lowen and Michel Van den Bergh, preprint arXiv:1905.07429 [math.CT]. To appear in *Adv. Math.*
- 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

- 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 *II 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 dglifts*, 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

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 the streaming platform Twitch, 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

French Intermediate

Dutch Upper intermediate

German Beginner

First Certificate in English, Grade A, 2006

DELF 2nd degré, 2005