# 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 - April Postdoc at University of Antwerpen, 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 prob-

lem, 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,  $A_{\infty}$ -categories; t-structures; deformations of triangulated categories, derived categories of algebraic varieties. Fourier-Mukai functors.

### Publications and preprints

- 2019 T-structures and twisted complexes on derived injectives, joint with Wendy Lowen and Michel Van den Bergh, preprint arXiv:1905.07429 [math.CT]
- 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 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

2020-2021	Exercise sessions for the course <i>Lineaire Algebra</i> 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.

## Languages

Italian Mothertongue

English Advanced

Intermediate

Dutch Upper intermediate

German Beginner

French

First Certificate in English, Grade A, 2006

DELF 2nd degré, 2005

Antwerpen, February 25, 2021