Timothy De Deyn

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Personal data

Nationality	Belgian, British
Languages	English (native, mother tongue), Dutch (native, father tongue), French (conversational)

Employment

Jan 2024 - Present	**University of Glasgow** **Research Associate** Mentor: Prof. dr. Michael Wemyss

Education

Nov 2019 - Oct 2023	**Vrije Universiteit Brussel** **Ph.D. in Mathematics** Title: Categorical resolutions of filtered schemes Supervisor: Prof. dr. Michel Van den Bergh Grant: Research Foundation - Flanders (FWO)
Sep 2017 - Jul 2019	**Vrije Universiteit Brussel** **Master of Science in Mathematics** *Summa cum laude*
Sep 2016 - Jul 2017	**Vrije Universiteit Brussel** **Bachelor of Science in Mathematics** *Summa cum laude*
Sep 2012 - Jul 2015	**Vrije Universiteit Brussel** **Bachelor of Science in Physics and Astronomy** *Summa cum laude*

Publications & preprints

[1] *A note on affine cones over Grassmannians and their stringy E-functions*, Proc. Amer. Math. Soc. 151 (2023), no. 6, 2363–2373.

[2] *Categorical resolutions of filtered schemes*, J. Noncommut. Geom. (2024), published online first.

[3] *Approximability and Rouquier dimension for noncommutative algebras over schemes*, joint with P. Lank and K. Manali-Rahul, arXiv:2408.04561.

[4] *Descent and generation for noncommutative coherent algebras over schemes*, joint with P. Lank and K. Manali-Rahul, arXiv:2410.01785.

[5] *Descending strong generation in algebraic geometry*, joint with P. Lank and K. Manali-Rahul, arXiv:2502.08629.

[6] *Regularity and bounded t-structures for algebraic stacks*, joint with P. Lank, K. Manali-Rahul and F. Peng, arXiv:2504.02813.

[7] *Quasi-perfect blowups detect regularity*, joint with P. Lank and K. Manali-Rahul, arXiv:2508.10845.

[8] *Re-framing the classification of ideals in noncommutative tensor-triangular geometry*, joint with S. K. Miller, arXiv:2510.23767.

[9]   *Measuring birational derived splinters*, joint with P. Lank, K. Manali-Rahul and S. Venkatesh, arXiv:2510.26648.

[10] *Nonexistence of singly compactly generated t-structures for schemes*, joint with A. Bhaduri, M. Hrbek, P. Lank and K. Manali-Rahul, arXiv:2511.01622.

Awards and grants

2019-2023	Ph.D. Fellowship fundamental research *Personal four-year Ph.D. research grant of the national research foundation FWO.*
13 Dec 2019	'Prijs van de wetenschappen' *Prize awarded to the best graduating student of the faculty of Sciences and Bioengineering Sciences.*

Teaching

Teaching Assistant for the following courses

Spring 2020-2023	Introduction to Group Theory *'Inleiding tot de groepentheorie', 1st year mathematics students*
Spring 2020 & Fall 2020-2022	Ordinary Differential Equations *'Gewone differentiaalvergelijkingen', 2nd year mathematics students*
Fall 2020-2022	Differential Geometry *'Differentiaalmeetkunde', 2nd year mathematics students*
Fall 2020-2022	Mathematics: Complements *'Aanvullingen Wiskunde', 2nd year Chemistry and Geography students*
Fall 2019	Engineering Skills: Mathematical techniques *'Ingenieursvaardigheden: Wiskundige Technieken', 1st year engineering students*

Miscellaneous

2017 - 2019	Tutor at Solutio *Tutoring secondary school students in mathematics, physics, chemistry and biology.*
2017 - 2018	Tutor at Vrije Universiteit Brussel *Tutoring the class of first year mathematics and physics students at the Vrije Universiteit Brussel, helping them with their mathematics courses, and introducing them to other aspects of studying at university.*

Talks

Conference, Colloquium and Workshop talks

15 Apr 2025	GLEN workshop, Sheffield, United Kingdom
20 Dec 2023	Young Scholar Day 2023, Brussels, Belgium
25 Nov 2022	The Antwerp Algebra Colloquium, Antwerp, Belgium
13 Jul 2022	The Fourth W. Killing and K. Weierstrass Colloquium, Gdańsk, Poland

Seminar talks

8 May 2025	Seminari di geometria algebrica complessa, Università degli Studi di Milano
27 Feb 2025	Algebraic Geometry Seminar, University of Liverpool
22 Mar 2024	Belgian-Dutch Junior Algebraic Geometry Seminar, Universiteit Antwerpen
20 Feb 2024	Algebraic Geometry Seminar, University of Glasgow
Spring 2020	In the Pursuing stacks seminar, online

Professional activities

Research visits/stays

Dec 2019	Max Planck Institute for Mathematics, Germany, hosted by Michel Van den Bergh (two weeks)

Events and seminars co-organised

Jan 2025 - Present	Derived categories and noncommutative enthusiasts (D.A.N.C.E.) seminar *Online seminar organised with Anirban Bhaduri, Pat Lank and Kabeer Manali-Rahul.*
8-9 May 2024	Algebraic Geometry Days in Glasgow *Two days of talks organised with Inder Kaur, Emma Lepri, Matthew Pressland and Franco Rota.*
Spring 2020	Pursuing stacks *Co-organised a reading group following Jarod Alper's course on stacks.*

Committees

2020 - 2023	Member of the Student Disciplinary Committee, VUB
2020 - 2023	Representative of the teaching assistants in the Mathematics Education council, VUB
2017 - 2019	Student representative in the Mathematics Education council, VUB
2014 - 2015	Student representative in the Physics and Astronomy Education council, VUB

Other

- Peer review for JPAA
- Reviewer for Mathematical Reviews
- Reviewer for zbMATH

CONFERENCES, WORKSHOPS AND SCHOOLS ATTENDED

1 - 5 Sep 2025	Motives, equivariant topology, and tt-geometry, Warwick, United Kingdom
28 - 29 Aug 2025	The Legacy of Peter Gabriel, Bielefeld, Germany
7 – 11 Jul 2025	Workshop on derived categories, noncommutative geometry and deformation theory, Cetraro, Italy
14 - 15 Apr 2025	GLEN workshop, Sheffield, United Kingdom
7 - 11 Apr 2025	Recent Developments in Algebraic K-Theory, Warwick, United Kingdom
9 - 10 Dec 2024	GLEN workshop, Glasgow, United Kingdom
28 - 30 Oct 2024	Tale of Geometries, Brussels, Belgium
23 - 27 Sep 2024	MFO-RIMS Tandem Workshop: Algebraic Geometry and Noncommutative Projective Varieties, Oberwolfach, Germany
16 - 20 Sep 2024	School on Deformation Theory IV, Rome, Italy
8 - 12 Apr 2024	Recent Developments in Noncommutative Algebraic Geometry, Berkeley, United States of America
26 - 30 Sep 2022	Representation Theory and Triangulated Categories, Paderborn, Germany
12 - 16 Sep 2022	Noncommutative Shapes, Antwerp, Belgium
5 - 6 Sep 2022	Algebra Days in Paris, Paris, France
31 Aug - 2 Sep 2022	Higher structures in deformation theory, Freiburg, Germany
30 Jul - 5 Aug 2022	Derived Categories, Moduli Spaces, and Hyperkähler Varieties, Ann Arbor, United States of America
18 - 22 Jul 2022	The Fourth W. Killing and K. Weierstrass Colloquium, Gdańsk, Poland
16 - 20 May 2022	Invariants in Algebraic Geometry, Dijon, France
14 - 16 Dec 2021	Arithmetic and geometry of varieties with trivial canonical bundle, Oslo, Norway
13 - 17 Sep 2021	Summer School on Derived and Triangulated Categories, Wuppertal, Germany
9 - 13 Sep 2019	The Geometry of Derived Categories, Liverpool, United Kingdom