

Nathan Blacher

CV

Toulouse School of Economics
University Toulouse Capitole
1 Esplanade de l'Université
31000 Toulouse, France
✉ nathan.blacher@tse-fr.eu

Employment

2026– **Lecturer (*Chargé de cours*)**, Toulouse School of Economics, France

Education

- 2021–2025 **PhD in Mathematics**, University of Sheffield, UK
Thesis: *Limit Cases in Noncommutative Ring Theory*
Supervisor: V. V. Bavula
- 2019–2021 **Master of Mathematics**, Saint Petersburg State University, Russia
Thesis: *Algebras defined by a potential and 3-Calabi-Yau Algebras*
Supervisor: Yury V. Volkov
- 2015–2019 **MMath** (First Class), University of Warwick, UK
Thesis: *Global Dimension of Rings with Polynomial Identity*
Supervisor: Charudatta Hajarnavis

Teaching Experience

- 2022–2025 **Graduate Teaching Associate/Assistant**, University of Sheffield, UK
Analysis and Algebra (level 2), Autumn 2023
Foundations of Pure Mathematics (level 1), Spring 2023, Autumn 2024
Analysis (level 2), Autumn 2022, Spring 2023
Further Foundation Mathematics (foundation year), Spring 2022, Spring 2024
- 2023–2025 **Engagement Workshops**, University of Sheffield, UK
Designed and ran workshops in Algebra and in Analysis (level 2) for students having difficulties engaging with their studies, to support disadvantaged students and widen participation.
- 2018–2019 **Supervisor for 1st year mathematics students**, University of Warwick, UK
This included marking their homework and meeting with them twice a week to answer their questions, help them understand the material and encourage them to explore further.

Teaching Award and Development

Fellow of the Higher Education Academy

Awarded May 2025

- May 2023 Effectively Teaching Mathematics as a Postgraduate
Organised by the Institute of Mathematics and its Applications
- January 2022 Ensuring EDI in Active Learning Strategies
Organised by the Foundation Year Network

Research Interests

Noncommutative algebra and ring theory. Polynomial identity and fully bounded rings and their global (homological) and Krull dimensions. Minimality conditions, commutative-like properties in rings and modules.

Articles

Rings whose subrings are all Noetherian or Artinian. *J. Algebra*, **693** (2026), 362–371.

On Minimal Noncommutative Rings, with V. V. Bavula. Submitted

Research Talks

- November 2024 When are noncommutative rings actually commutative?
ShEAF Pure Maths Seminar, Sheffield, UK
- July 2024 Understanding the borderline between commutative and noncommutative algebra.
European Congress of Mathematics, Sevilla, Spain
- February 2024 Understanding the borderline between commutative and noncommutative algebra.
Introduction to Modern Advances in Algebra, Exeter, UK
- July 2023 Understanding the borderline between commutative and noncommutative algebra.
London Mathematical Society Summer School, Sheffield, UK

Additional Relevant Experience

- 2022–2025 Co-created and ran a weekly seminar for young researchers in noncommutative algebra in Sheffield
- March 2023 Poster presentation at the Sheffield Faculty of Science Showcase Event
- Summer 2019 Research internship in algebraic cryptology.
International Digital Laboratory at the University of Warwick, UK
- August 2019 Co-organised a cryptology research workshop at the Alan Turing Institute, London, UK