

Charlotte Scott Research Centre for ALGEBRA

Evgeny Khukhro, Paula Macedo Lins de Araujo,
Sandro Mattarei, Simon Smith

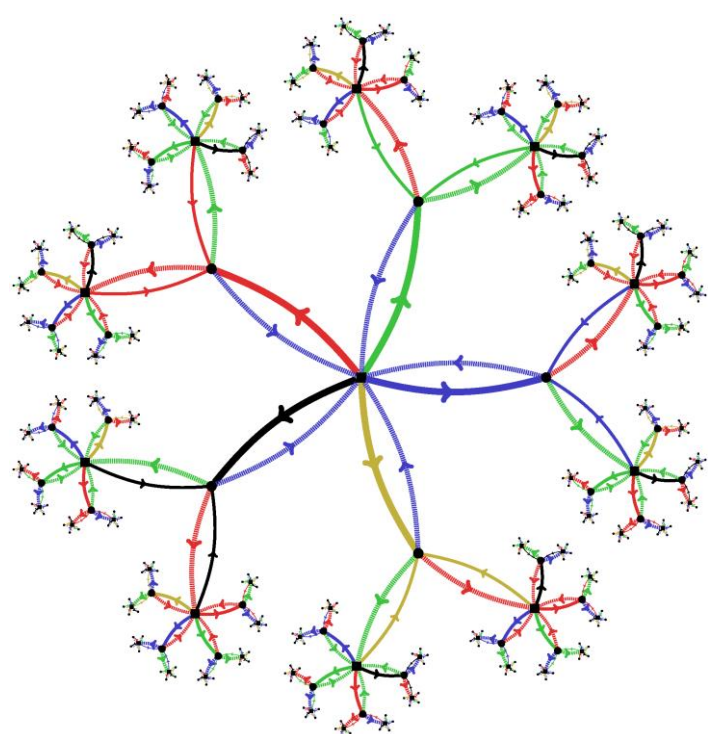
Post-Doctoral Research Associate: Ged Corob Cook

Visiting Senior Fellow: Anitha Thillaisundaram

Former and current PhD students:
Valentina Iusa, Callum Burrows

Since opening as an Algebra Research Group in 2014 and becoming a Centre in 2018, the Algebra Centre has put Lincoln on the world map of excellence in algebraic research in Group Theory and Theory of Lie Algebras.

The Centre comprises the Mathematics Unit of the REF-2021 submission of the University of Lincoln. The members produce high quality research published in international journals, give invited plenary talks at prestigious national and international conferences. Algebra Centre researchers are members of professional bodies like London Mathematical Society, editorial boards (Journal of Algebra, Journal of Group Theory), grant committees (EPSRC Peer Review College), and organizing committees of conferences, with several conferences held in Lincoln. As one of the most prestigious indicators of the high quality of their research, some of the results of the members of the Algebra Centre were included in the curriculum of advanced courses in Group Theory in Brazil, UK (Oxford), and USA.



Graph of Simon Smith's new box product in Group Theory

The Algebra Centre has extensive and fruitful international collaborations with researchers in Australia, Brazil, Germany, Italy, Russia, Spain, Sweden, USA, producing joint papers. In the last 5 years the four members of the Centre published 35 papers in international journals, including high-ranking journals such as *Bulletin of Mathematical Sciences*, *Duke Mathematical Journal*, *Israel Journal of Mathematics*, *Mathematische Nachrichten*. The Algebra Research Seminar in Lincoln attracts visitors both from the UK and overseas: more than 50 external speakers visited Lincoln over the last four years, 17 overseas speakers.



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Valentina Iusa



Callum Burrows

Members of the Centre secured research grants from EPSRC (Dr Simon Smith's EPSRC grant is one of the biggest for pure mathematics research), London Mathematical Society (grants for conferences and joint research/travel), as well as travel grants from foreign institutions (Banff International Research Station, Chinese Academy of Sciences, CNPq-Brazil, Düsseldorf University, Mathematics Centre in Akademgorodok, Shanghai University).

One of the members of the Algebra Centre Dr Anitha Thillaisundaram recently took up a Senior Lecturer post in Lund University, Sweden, but maintains links as a Visiting Senior Fellow. The newly appointed (2022) member of staff Dr Paula Macedo Lins de Araujo is a young researcher, who got her PhD in 2019 at Bielefeld University, which is one of the top European universities, and then had her post-doctoral stay in Belgium at KU Leuven Kulak university. Our former PhD student Valentina Iusa got her PhD in Lincoln in 2019, and her thesis results were published in peer reviewed international journals. Dr Ged Corob Cook joined the Centre as a three-year post-doctoral fellow in 2022, funded by Dr Simon Smith's EPSRC grant.

Staff of the Algebra Centre conduct extensive outreach activities aimed at raising the public awareness of the importance and beauty of mathematics, attracting school children to studying mathematics at all levels, changing the perception of mathematics and mathematicians in the society. They organize every year Lincoln Mathematics Challenges, masterclass lectures and workshops for school children, as well as public lectures for the general public.



Trophies for winners of Lincoln Mathematics Challenge