# Ján Špakula

Associate Professor

School of Mathematical Sciences, Faculty of Social Sciences, University of Southampton SO17 1BJ, United Kingdom

Phone: +44 23 8059 3137 Email: jan.spakula@soton.ac.uk URL: https://spakula.github.io

## Publications & talks

JOURNAL ARTICLES (SELECTED)

• "Measured asymptotic expanders and rigidity for Roe algebras", with Kang Li and Jiawen Zhang, *International Mathematics Research Notices* 2022, [DOI]

• "Measured expanders", with Kang Li and Jiawen Zhang, Journal of Topology and Analysis (2022) [DOI]

• "Quasi-locality and Property A", with Jiawen Zhang, Journal of Functional Analysis (2020) [DOI]

• "Relative commutant pictures of Roe algebras", with Aaron Tikuisis, Comm. in Math. Phys. (2019) [DOI]

• "A metric approach to limit operators", with Rufus Willett, Transactions of AMS (2017) [DOI]

• "Strong hyperbolicity", with Bogdan Nica, Groups, Geometry and Dynamics (2016) [DOI]

• "On rigidity of Roe algebras", with Rufus Willett, Advances in Mathematics (2013) [DOI]

• "Uniform local amenability", with Jacek Brodzki, Graham Niblo, Rufus Willett and Nick Wright, *Journal of Noncommutative Geometry* (2013) [DOI]

• "Maximal and reduced Roe algebras of coarsely embeddable spaces", with Rufus Willett, *Journal für Reine und Angewandte Mathematik (Crelle)* (2013) [DOI]

• "Coarse amenability and coarse embeddings", with Goulnara Arzhantseva and Erik Guentner, *Geometric* and Functional Analysis (GAFA) (2012) [DOI]

• "Controlled coarse homology and isoperimetric inequalities", with Piotr Nowak, J. of Topology (2010) [DOI]

• "Uniform K-homology", Journal of Functional Analysis (2009) [DOI]

#### SUBMITTED PREPRINTS

- "Sobolev spaces and uniform boundary representations", with Kevin Boucher

#### Talks (selected)

• "Some uniformly bounded representations of hyperbolic groups":: Noncommutative Geometry Festival, St. Louis, USA (13 June 2023)

• "Measured asymptotic expanders and rigidity of Roe algebras":: Interactions between expanders, groups and operator algebras workshop, Münster, Germany (virtually) (10 June 2021)

• "Quasi-locality and asymptotic expanders":: Functional Analysis seminar, University of Oxford (18 Feb 2020)

• "Quasi-locality and Property A": Special session on recent advances in coarse geometry, AMS Sectional Meeting, Auburn, AL (16 Mar 2019)

### Grants, honors & awards

• EPSRC Standard Grant EP/V002899/1, Boundary rep<sup>n</sup>s of non-positively curved groups (2021-24)

• Research in Pairs, London Mathematical Society Scheme 4 (2018; with B. Nica)

• Career Integration Grant "Coarse Analysis", within the FP7-PEOPLE-2013-CIG Marie Curie Actions programme (2015-2019)

• Research-in-Teams at Erwin Schrödinger International Institute, Vienna, Austria (2013; with E. Guentner and R. Willett)

• B. F. Bryant Prize for Excellence in Teaching, Vanderbilt University, USA (2008)