Andrew McKee

Faculty of Mathematics,
University of Białystok,
K. Ciołkowskiego 1M
15-425 Białystok, Poland

amckee240@qub.ac.uk
Skype: andy.mckee06
Phone: + 48 729 326 693
Website: andrewmckeemaths.github.io

Education

Queen's University Belfast
MSci, Mathematics, 2013.
PhD, Mathematics, 2017. Thesis: Multipliers of dynamical systems.

Employment

University of Saskatchewan
Postdoctoral Fellow, September 2017–August 2018.
Chalmers University of Technology and the University of Gothenburg
Postdoctoral Fellow, September 2018–September 2020.
University of Białystok
Assistant professor, November 2020–present.

Awards

Royal Irish Academy, Hamilton award in Mathematics, 2011.
Queen's University Belfast, Burgess prize for Topology, 2013.
Queen's University Belfast, A. C. Dixon prize, 2013.

Experience

Teaching
Tutor, Ring Theory, Queen's University Belfast, autumn 2015 and autumn 2016.
Tutor, Linear Algebra, Queen's University Belfast, spring 2016.
Tutor, Numbers, Vectors and Matrices, Queen's University Belfast, academic year 2016–2017.
Lecturer, Calculus 1, University of Saskatchewan, May 2018.
Lecturer, Calculus 2, University of Saskatchewan, summer 2018.
Supervisor, Bachelor's project: The Banach–Tarski Paradox, Chalmers University of Technology and the University of Gothenburg, spring 2020.
Lecturer, The Banach–Tarski Paradox (pedagogical course), University of Białystok, winter 2020.
Lecturer, Master Seminar 1 (mathematical English), University of Białystok, winter 2020.

Recent research activities
Organiser, Young Functional Analysts' Workshop, Queen's University Belfast, April 2016.
Research visit, Institute of Mathematics, Polish Academy of Sciences, Warsaw, March 2017.
Participant, Operator algebras: subfactors and their applications,
Isaac Newton Institute for Mathematical Sciences, Cambridge, April–May 2017,
Research visit, School of Mathematics and Statistics, Carleton University,
Ottawa, November 2017.
Participant, 20th Canadian Abstract Harmonic Analysis Symposium,
Carleton University, June 2018.
Participant, Maximal subgroups and operator algebras,
Institute of Mathematics, Polish Academy of Sciences, Warsaw, September 2019.
Participant, Richard Kadison and his mathematical legacy: a memorial conference,
University of Copenhagen, November 2019.

Publications

Herz–Schur multipliers of dynamical systems, *Advances in Mathematics* (2018), **331**, 387–438, with I. Todorov and L. Turowska.

Weak amenability for dynamical systems, to appear in *Studia Mathematica*, arXiv:1612.01758 [math.OA].

Positive Herz–Schur multipliers and approximation properties of crossed products, *Math. Proc. Cam. Phil. Soc.* (2018), **165**, 511–532, with A. Skalski, I. Todorov and L. Turowska.

Multipliers and duality for group actions, under review, arXiv:1912.10700 [math.OA].

Exactness and SOAP of crossed products via Herz–Schur multipliers, *Journal of Mathematical Analysis and Applications* (2021), **496**, issue 2, with L. Turowska.

Amenable and inner amenable actions and approximation properties for crossed products, under review, arXiv:2012.14455 [math.OA], with R. Pourshahami.

Central and convolution Herz–Schur multipliers, under review, arXiv:2101.00244 [math.OA], with R. Pourshahami, I. Todorov and L. Turowska.

Talks

Invited

Groups and operator algebras, May 2016, Queen's University Belfast.
Title: Herz–Schur multipliers of dynamical systems.

Noncommutative Geometry Seminar, March 2017, IM PAN Warsaw.
Title: Herz–Schur multipliers and approximation properties.

Operator algebras: subfactors and their applications, April 2017, Newton Institute, Cambridge.
Title: Herz–Schur multipliers and approximation properties.

Analysis seminar, November 2017, Carleton University.
Title: Approximation properties of groups and crossed products.

Analysis seminar and colloquium, November 2017, University of Regina.
Title (seminar): Schur multiplication and matrices of operators.
Title (colloquium): Herz–Schur multipliers and approximation properties of crossed products.

20th Canadian Abstract Harmonic Analysis Symposium, June 2018, Carleton University, Canada.
Title: Multipliers of Actions and Dual Coactions.

Workshop on Operator Algebras and their Applications, January 2020, IPM Tehran, Iran.
Title: Approximation properties for group actions via multipliers.

Analysis and probability seminar, University of Białystok, December 2020.
Title: Amenable actions and module maps.

Faculty seminar, University of Białystok, January 2021.
Title: Multipliers of operator algebras associated to groups: special cases.

Participant

Young Functional Analysts' Workshop, June 2015, Queen Mary University of London.
Title: Multipliers of dynamical systems.

Young Mathematicians in C^*-algebras, August 2015, University of Copenhagen.
Title: Multipliers of dynamical systems.

Groups and operators, August 2016, Chalmers University of Technology.
Title: Schur and Herz–Schur multipliers associated to dynamical systems.

Young Functional Analysts' Workshop, March 2017, University of Glasgow.
Title: Multipliers and approximation properties.

References

Available on request.