

# Andrew McKee

Mathematical Sciences  
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**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–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.

## **Selected research activities**

Participant, Thematic program on abstract harmonic analysis, Banach and operator algebras, Fields Institute, Toronto, March 2014.  
Participant, CStar Masterclass: classification, structure and regularity, University of Glasgow, August 2014.  
Organiser, Young Functional Analysts' Workshop, Queen's University Belfast, April 2016.  
Participant, Workshop on Topological Dynamics and Operator Algebras, University of Glasgow, December 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, 2017 Canadian Mathematical Society winter meeting, operator algebras session, University of Waterloo, December 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, under review, arXiv:2002.05394 [math.OA], with 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.

### 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.

### Departmental Seminars

- Operator algebra seminar, Queen’s University Belfast, spring 2014.  
Title: The Fourier algebra of a locally compact group.
- Operator algebra seminar, Queen’s University Belfast, spring 2015.  
Title: Amenable actions and exactness for discrete groups.
- Postgraduate seminar, Queen’s University Belfast, summer 2016.  
Title: Amenable groups.
- Analysis seminar, University of Saskatchewan, autumn 2017.  
Title: Schur multiplication and approximation properties of groups.

## References

Available on request.