CURRICULUM VITAE OF KEVIN AGUYAR BRIX

CONTACT INFORMATION:

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EMPLOYMENT AND AFFILIATION:

Mar 2021 – present: Postdoc, University of Glasgow, United Kingdom

Funded by a Carlsberg Foundation Internationalisation Fellowship;

Feb 2020 - Feb 2021: Postdoc, University of Wollongong, Australia

Funded by a Carlsberg Foundation Internationalisation Fellowship;

Sep 2019 – Jan 2020: External lecturer, University of Copenhagen, Denmark

Temporary teaching position.

EDUCATION:

Sep 2019: Doctor of philosophy in Mathematics, University of Copenhagen

Title: Topological dynamics, groupoids and C^* -algebras,

Supervisor: Professor Søren Eilers;

May 2016: Master of Science in Mathematics, University of Copenhagen; Feb 2014: Bachelor of Science in Mathematics, University of Copenhagen.

PUBLICATIONS AND PREPRINTS:

- K.A. Brix: Sturmian subshifts and their C^* -algebras, arXiv preprint.
- B. Armstrong, **K.A. Brix**, T.M. Carlsen, and S. Eilers: *Conjugacy of local homeomorphisms via groupoids and C*-algebras*, arXiv preprint.
- K.A. Brix: Balanced strong shift equivalence, balanced in-split, and eventual conjugacy, Ergodic Theory and Dynamical Systems (2020), doi:10.1017/etds.2020.126.
- K.A. Brix and T.M. Carlsen: C^* -algebras, groupoids and covers of shift spaces, Transactions of the American Mathematical Society, Series B **7** (2020), 134–185.
- K.A. Brix and E. Scarparo: C^* -simplicity and representations of topological full groups of groupoids, Journal of Functional Analysis **227** (2019), no. 9, 2981–2996.
- K.A. Brix and T.M. Carlsen: Cuntz-Krieger algebras and one-sided conjugacy of shifts of finite type and their groupoids, Journal of the Australian Mathematical Society 109 (2020), no. 3, 289–298.

WORK IN PROGRESS:

B. Armstrong, **K.A. Brix**, T.M. Carlsen, and S. Eilers: *Conjugacy of graphs*; **K.A. Brix**, T.M. Carlsen, and A. Sims: *The ideal structure of certain* C^* -algebras.

GRANTS:

Mar 2022 - Mar 2024: International postdoctoral grant, Independent Research Fund Denmark

Hosted by University of Glasgow, United Kingdom.

Mar 2021 - Mar 2022: Carlsberg Foundation Internationalisation Fellowship

Hosted by University of Glasgow, United Kingdom.

Feb 2020 – Feb 2021: Carlsberg Foundation Internationalisation Fellowship

Hosted by University of Wollongong, Australia.

RESEARCH TALKS AND PRESENTATIONS:

The following is a list of invited talks on or around my area of research.

May 2022: AMS Sectional Meeting (virtual), United States.

Mar 2022: Operator algebra seminar, University of Southern Denmark, Denmark.

Mar 2022: Aberdeen Algebra Seminar, University of Aberdeen, Scotland. Sep 2021: Seminar, Research Center for Operator Algebras (virtual),

East China Normal University, China.

Sep 2021: New York Noncommutative Geometry Seminar (virtual),

Apr 2021: Operator Algebra and Noncommutative Geometry seminar (virtual),

University of Wollongong, Australia.

Mar 2021: United Kingdom Operator Algebras seminar (virtual), United Kingdom. Feb 2021: Operator Algebras seminar (virtual), Copenhagen/Odense, Denmark. Jun 2020: Abend seminar (virtual), University of Western Sydney, Australia.

Nov 2019: Seminar, Queen Mary University, London, England.

Nov 2019: Oberseminar, WWU Münster, Germany. Oct 2019: Analysis seminar, KU Leuven, Belgium.

Jan 2019: Analysis seminar, University of Glasgow, Scotland.

Dec 2018: Danish Operator Aalgebra Seminar,

University of Southern Denmark, Denmark.

Jun 2018: Workshop in operator algebras and dynamics,

University of the Faroe Islands, the Faroe Islands.

Feb 2018: Seminar, University of Wollongong, Australia.
Jan 2018: Seminar, University of Western Sydney, Australia.
May 2017: CRM, Universitat Autónoma de Barcelona, Spain.
Sep 2016: PhD seminar, University of Copenhagen, Denmark.

SERVICE TO THE PROFESSION AND COMMUNITY:

• I am a co-organiser of the Glasgow Analysis Seminar.

- I organised the Operator Algebra and NonCommutative Geometry seminar in 2020 at the University of Wollongong, Australia.
- I have worked as referee for various journals including *Transaction of the Americal Mathematical Society, Journal of Mathematical Analysis and Applications, Mathematica Scandinavica, Proceedings of the Royal Society of Edinburgh. Section A, and Studia Mathematica.*
- I was an organiser for the following conferences/workshops:
 - Young Mathematicians in C*-Algebra (YMC*A), 2017 and 2019, University of Copenhagen,
 - Rigidity of C*-algebras associated to dynamics, 2017, University of Copenhagen,
 - o Danske Unge C^* -algebraikers Symposium (DU C^* S) 2017, University of Aarhus.
- I helped organise the *What is . . . seminar* at the University of Copenhagen (2019).
- I was the Ph.D and Postdoc representative for the Local Collaboration Committee (lokal samarbejdsudvalg, LSU), January 2017 to January 2019, Department of Mathematical Sciences at the University of Copenhagen.

TEACHING EXPERIENCE:

2020: MATH151 (general mathematics), lecturer

2019: Mathematical modeling, (exercises)

Numerical analysis, (exercises)

2016–2019: Supervision of 1 Master's project (30 ECTS) and

1 Graduate project (15 ECTS) with Søren Eilers

Functional analysis, (exercises and occasional lectures)

Numerical analysis, (exercises)

Differential equations and control theory. (exercises).

2011–2016: Introduction to Mathematics, (exercises)

Linear algebra, (exercises)

Discrete Mathematics, (exercises)
Analysis 0, 1, and 2, (exercises)
Measure and integration, (exercises)
Mathematics for biologists, (exercises)
Philosophy of science, (exercises).