CURRICULUM VITAE OF KEVIN AGUYAR BRIX

PERSONAL INFORMATION:

ORCID: https://orcid.org/0000-0003-1237-6446

Email: kabrix.math@fastmail.com

Website: https://kevinaguyarbrix.github.io Address: School of Mathematics and Statistics,

University of Glasgow,

University Place,

Glasgow G12 8QQ, United Kingdom

EMPLOYMENT AND AFFILIATION:

Mar 2022 – present: DFF-international Postdoc, University of Glasgow, United Kingdom

Funded by Independent Research Fund Denmark;

Mar 2021 – Feb 2022: Carlsberg fellow (Postdoc), University of Glasgow, United Kingdom

Funded by a Carlsberg Foundation Internationalisation Fellowship;

Feb 2020 - Feb 2021: Carlsberg fellow (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.

RESEARCH GRANTS:

2024–2028: Starting Grant, Swedish Research Council, (4000000 SEK),

16 % success rate.

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

Hosted by University of Glasgow, United Kingdom (1303000 DKK),

14% success rate.

Mar 2021 - Mar 2022: Carlsberg Foundation Internationalisation Fellowship,

Hosted by University of Glasgow, United Kingdom (410727 DKK).

Feb 2020 - Feb 2021: Carlsberg Foundation Internationalisation Fellowship,

Hosted by University of Wollongong, Australia (350000 DKK).

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 (SUBMITTED) PREPRINTS:

Authors are listed alphabetically. Authors with an asterisk * were undergraduate students when paper was written.

- K.A. Brix, A. Mundey, and A. Rennie: *Morphisms of Cuntz–Pimsner algebras from completely positive maps*, (arXiv:2311.16600).
- **K.A. Brix**, C. Bruce, and A. Dor-On: *Normal coactions extend to the C*-envelope*, (arxiv:2309.04817).
- K.A. Brix, A. Mundey, and A. Rennie: Splittings for C*-correspondences and strong shift equivalence, (arXiv:2305.01917).
- K.A. Brix, T.M. Carlsen, and A. Sims: *Ideal structure of C*-algebras of commuting local homeomorphisms*, (arXiv:2303.02313).
- K.A. Brix: Invertible and noninvertible symbolic dynamics and their C*-algebras, Contemporary Mathematics AMS, to appear.
- **K.A. Brix** and Pete Gautam*: *On strong shift equivalence for row-finite graphs and C*-algebras*, Involve, a Journal of Mathematics, to appear. (arXiv:2212.05481).
- K.A. Brix, Toke Meier Carlsen, and Aidan Sims: Some results regarding the ideal structure of C*-algebras of étale groupoids, (arXiv:2211.06126).
- K.A. Brix: Sturmian subshifts and their C*-algebras, Journal of Operator Theory 90 (2023), 523–544.
- B. Armstrong, K.A. Brix, T.M. Carlsen, and S. Eilers: Conjugacy of local homeomorphisms via groupoids and C*-algebras, Ergodic Theory and Dynamical Systems 43 (2023), 2516–2537.
- 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.

SELECTED RESEARCH VISITS:

Mar 2024: (planned) Oberwolfach (*Combinatorial *-algebras*), Germany.

Sep-Oct 2023: Fields institute, Canada.

Jun-Jul 2019: Visiting Aidan Sims, University of Wollongong, Australia.

Oct 2018: Visiting Eduard Ortega, NTNU, Norway.

Nov 2017–Feb 2018: Visiting Aidan Sims, University of Wollongong, Australia. Mar 2017: CRM, Universitat Autonoma de Barcelona, Spain.

OTHER GRANTS:

2022 London Mathematical Society, Scheme 2 (£1500)

To support Ruy Exel's visit to University of Glasgow

(with Chris Bruce and Eduardo Scarparo).

2022 London Mathematical Society (£900),

Undergraduate Research Bursary (URB-2022-42)

To support summer research project with student Pete Gautam.

2022 Glasgow Mathematical Journal Trust (£3000)

To support international workshop in Glasgow, I was the named applicant

(with Chris Bruce, Xin Li, and Alistair Miller).

2022 Edinburgh Mathematical Society (£1500)

To support international workshop in Glasgow (with Chris Bruce, Xin Li, and Alistair Miller).

2022 London Mathematical Society, Scheme 6 Workshop Grant (£3600)

To support international workshop in Glasgow (with Chris Bruce, Xin Li, and Alistair Miller).

Julie Damms Studiefond (5000 DKK).

INVITED TALKS:

Jul 2023: Foundations of Physics 2023, Bristol, England.
Jul 2023: Graph algebras 2023 conference, Bedlewo, Poland.

Jun 2023: Algebra, Geometry and C*-algebras, ICMS, Edinburgh, Scotland.

May 2023: Seminar, University of Southern Denmark, Denmark.

Apr 2023: Seminar, Lund University, Sweden.

Apr 2023: Analysis and Probability seminar, University of Gothenburg, Sweden.

Dec 2022: GAPT seminar, University of Cardiff, Wales. Nov 2022: Mathematical Sciences Research Centre,

Queen's University Belfast, Northern Ireland.

Oct 2022: Groups and operator algebras seminar.

University of Copenhagen, Denmark.

Jun 2022: Analysis seminar, University of Oxford, England.

May 2022: Operator Algebra and Noncommutative Geometry seminar (virtual),

University of Wollongong, Australia.

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

Mar 2022: Aberdeen Algebra Seminar, University of Aberdeen, Scotland.

Mar 2022: Operator Algebra Seminar, University of Southern Denmark, Denmark.

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 Algebra Seminar,

University of Southern Denmark, Denmark.

Jun 2018: Workshop in operator algebras and dynamics,

University of the Faroe Islands, the Faroe Islands.

Feb 2018: Operator Algebra and Noncommutative Geometry 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.