

## CURRICULUM VITAE OF KEVIN AGUYAR BRIX

### PERSONAL INFORMATION:

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### EMPLOYMENT AND AFFILIATION:

Mar 2022 – present: *Postdoc*, University of Glasgow, United Kingdom  
Funded by Independent Research Fund Denmark;  
Mar 2021 – Feb 2022: *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 (SUBMITTED) PREPRINTS:

Authors are listed alphabetically.

- **K.A. Brix**, *Invertible and noninvertible symbolic dynamics and their  $C^*$ -algebras*, (arXiv:2212.11188).
- **K.A. Brix** and Pete Gautam, *On strong shift equivalence for row-finite graphs and  $C^*$ -algebras*, (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, to appear.

- 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, 1–22, doi:10.1017/etds.2022.50.
- **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.

#### PERSONAL GRANTS:

- Mar 2022 – Mar 2024: International postdoctoral grant, Independent Research Fund Denmark, Hosted by University of Glasgow, United Kingdom (1303000 DKK).
- 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).

#### OTHER GRANTS:

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| 2022 | London Mathematical Society, Scheme 2 (£1500)<br>To support Ruy Exel's visit to University of Glasgow<br>(with Chris Bruce and Eduardo Scarparo).                         |
| 2022 | London Mathematical Society (£900),<br>Undergraduate Research Bursary (URB-2022-42)<br>To support summer research project with student Pete Gautam.                       |
| 2022 | Glasgow Mathematical Journal Trust (£3000)<br>To support international workshop in Glasgow, I was the named applicant<br>(with Chris Bruce, Xin Li, and Alistair Miller). |
| 2022 | Edinburgh Mathematical Society (£1500)<br>To support international workshop in Glasgow<br>(with Chris Bruce, Xin Li, and Alistair Miller).                                |
| 2022 | London Mathematical Society, Scheme 6 Workshop Grant (£3600)<br>To support international workshop in Glasgow<br>(with Chris Bruce, Xin Li, and Alistair Miller).          |
| 2021 | Julie Damms Studiefond (5000 DKK).  |

#### INVITED TALKS:

2023:	(scheduled) Algebra, Geometry and $C^*$ -algebras, ICMS, Edinburgh, Scotland.
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 Autònoma 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 write reviews for MathSciNet and I have worked as referee for various journals including *Transaction of the American Mathematical Society*, *Canadian Journal*

*of Mathematics, Journal of Mathematical Analysis and Applications, Mathematica Scandinavica, Proceedings of the Royal Society of Edinburgh. Section A, and Studia Mathematica.*

- I helped organise the following conferences/workshops:
  - *Glasgow Late August Symbolic Dynamics, Groups, and Operators Workshop*, August 2022, University of Glasgow;
  - *Young Mathematicians in  $C^*$ -Algebra (YMC<sup>\*</sup>A)*, 2017 and 2019, University of Copenhagen;
  - *Rigidity of  $C^*$ -algebras associated to dynamics*, 2017, University of Copenhagen;
  - *Danske Unge  $C^*$ -algebraikers Symposium (DUC<sup>\*</sup>S)*, 2017, University of Aarhus.
- I helped restart and 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:

2023:	Functional analysis, lecturer and course responsible
2020:	MATH151 (general mathematics), lecturer
2019:	Mathematical modeling, (exercises, Maple) Numerical analysis, (exercises, Python)
2016–2019:	Supervision of a Master's project (30 ECTS) and a Graduate project (15 ECTS) joint 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).