# CURRICULUM VITAE OF KEVIN AGUYAR BRIX

# **CONTACT INFORMATION:**

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#### **EMPLOYMENT AND AFFILIATION:**

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:**

- K.A. Brix, Balanced strong shift equivalence, balanced in-split, and eventual conjugacy, to appear in Ergodic Theory and Dynamical Systems (2020), arXiv preprint (arXiv:1912.05212).
- 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 (2019), doi:10.1017/S1446788719000168.

#### WORK IN PROGRESS:

**K.A. Brix**: Sturmian shifts and their  $C^*$ -algebras;

B. Armstrong, **K.A. Brix**, T.M. Carlsen and S. Eilers: *Conjugacy and graph*  $C^*$ -algebras; **K.A. Brix**, T.M. Carlsen and A. Sims: *The ideal structure of Deaconu–Renault groupoid*  $C^*$ -algebras.

## **GRANTS:**

Feb 2020 – Feb 2021: Carlsberg Foundation Internationalisation Fellowship (£42200)

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.

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 organise the Operator Algebra and NonCommutative Geometry seminar at the University of Wollongong, Australia.
- I have worked as referee for *Mathematica Scandinavica*, *Journal of Mathematical Analysis and Applications*, 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  $\textit{Danske Unge } \ C^*$ -algebraikers Symposium (DUC\*S) 2017, University of Aarhus.

 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).