

Martin Speirs

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Education

- 2015-2018 **PhD student** *University Copenhagen*
• Title: On the algebraic K -theory of coordinate axes and truncated polynomial algebras.
• Advisor: Professor Lars Hesselholt
- 2017 **Visiting student researcher** *University of California, Berkeley*
During the Spring of 2017 I was at Berkeley visiting Professor Martin Olsson
- 2015 **MSc. in Mathematics** *University of Copenhagen*
• Master's thesis: *Model Categories with a View Towards Rational Homotopy Theory*.
Advisor: Dr. Kristian Jonsson Moi
- 2012-2013 **Visiting student** *University of California, Berkeley*
- 2012 **BSc. in Mathematics** *University of Copenhagen*
• Bachelor thesis: *Representation Theory of Finite Groups and Group Rings, with a Proof of Burnside's $p^a q^b$ -Theorem*.
Advisor: Associate Professor Søren Jøndrup.

Research papers

1. **On the K -theory of coordinate axes in affine space.** *Preprint*
2. **On the K -theory of truncated polynomial algebras, revisited.** *Preprint*

Theses

- PhD **On the algebraic K -theory of coordinate axes and truncated polynomial algebras.** *Defended November 2018*
- MSc **Model categories; with a view towards rational homotopy theory.** *Defended September 2015*

Talks delivered

- 2018 **Algebraic K -theory of coordinate axes** *Copenhagen, Algebra and Topology Seminar*
- 2017 **Topological Hochschild homology and Witt vectors** *Stanford, Student Topology Seminar*
- 2017 **Topological Hochschild homology** *Berkeley, Derived Algebraic Geometry Seminar*

- 2017 **The de Rham-Witt complex** *Berkeley, Number Theory Seminar*
- 2017 **Witt vectors, semirings and total positivity** *Berkeley, Student Arithmetic Geometry Seminar*
- 2016 **Introduction to Tate algebras** *Copenhagen, Berkovich seminar*
- 2016 **Topological Hochschild homology and Witt vectors** *Nagoya, PhD seminar*
- 2016 **Andre-Quillen homology and the cotangent complex** *University of Copenhagen, Derived Algebraic geometry seminar*
- 2014 **Colloquium talk on Homotopy Type Theory** *University of Copenhagen*

Attended conferences and workshops

- 2018 **Arbeitsgemeinschaft on Topological Cyclic Homology** *Oberwolfach*
- 2017 **Workshop on Motivic and Equivariant Homotopy Theory** *University of Osnabrück*
- 2017 **Arizona Winter School in Arithmetic Geometry** *University of Arizona in Tucson*
Perfectoid Spaces
- 2016 **Winter School on Bordism, L-theory, and Real Algebraic K-theory** *University of Regensburg*
- 2016 **Hermitian K-theory and trace methods** *Hausdorff Institute, Bonn*
- 2016 **Motives and Derived Algebraic Geometry** *University of Duisberg-Essen*
- 2016 **Arithmetic Geometry and Topological Cyclic Homology** *University of Copenhagen*
- 2016 **Recent developments in Integral p-adic Hodge Theories** *University of Bonn*
- 2015 **Algebraic structures of Hochschild complexes** *University of Copenhagen*
- 2014 **Vienna Summer of Logic** *Vienna*
- 2013 **Summer school on Representation Theory** *The Gulbenkian Foundation, Lisbon*
- 2011 **Summer school on Experimental Mathematics** *University of Copenhagen*

Organizing

- 2018 **Reporter for the Arbeitsgemeinschaft on Topological Cyclic Homology** *Report available here:*
<https://www.mfo.de/occasion/1814>
- 2017 **Stable homotopy theory and p-adic Hodge theory** *University of Copenhagen*
<http://www.math.ku.dk/english/research/conferences/2017/stable-homotopy/>
- 2016 **Young Topologists Meeting 2016** *University of Copenhagen*
<http://www.math.ku.dk/english/research/conferences/2016/ytm2016/>

Teaching experience

- 2010-2017 **Teaching Assistant** *University of Copenhagen*
- Introduction to Mathematics (2010, 2011, 2015, 2016, 2017)
 - Linear Algebra (2010 and 2011)
 - Philosophy of Science and Mathematics (2014)
 - Algebra 2, Ring Theory (2014 and 2015)
- Autumn 2013 **Academic Trainee** *University of California, Berkeley*
- Trainee under supervision of Professor Thomas Scanlon. I attended an introductory course in model theory, given by Professor Scanlon. During the course I wrote a comprehensive set of notes, available online at math.berkeley.edu/~scanlon.

Scholarships

- 2012-2013 **Visiting student** *University of California, Berkeley*
- I received the following scholarships in connection with my studies at Berkeley.
- Julie Damms Study Foundation (\$1850)
 - Julie Marie Vinter Hansens Travel Grant (\$1850)
 - Augustinus Foundation (\$2800)

Languages and Computer Skills

- Danish** Fluent
- English** Fluent
- Spanish** Proficient
- Proficient \LaTeX , MAPLE