

BEREN SANDERS

Curriculum vitae

CONTACT INFORMATION

Department of Mathematical Sciences
University of Copenhagen
Universitetsparken 5
2100 København Ø, Denmark
Phone: +45 2299 8338
Email: sanders@math.ku.dk
URL: <http://beren.sites.ku.dk>

RESEARCH INTERESTS

Algebra and topology: triangulated categories, stable homotopy theory, algebraic geometry, modular representation theory, and noncommutative topology.

EDUCATION

University of California, Los Angeles

Ph.D. in Mathematics, June 2014

Advisor: Paul Balmer

University of New South Wales

B.S. in Computer Science / B.S. (Hons.) in Mathematics, April 2008

Awarded First Class Honours and the University Medal

EMPLOYMENT

University of Copenhagen

Department of Mathematical Sciences

Postdoctoral Researcher

September, 2014 – present

PUBLICATIONS

1. B. Sanders. Higher comparison maps for the spectrum of a tensor triangulated category. *Adv. Math.*, 247:71–102, 2013
2. P. Balmer, I. Dell’Ambrogio, and B. Sanders. Restriction to finite-index subgroups as étale extensions in topology, KK–theory and geometry. *Algebr. Geom. Topol.*, 15(5):3025–3047, 2015
3. P. Balmer, I. Dell’Ambrogio, and B. Sanders. Grothendieck–Neeman duality and the Wirthmüller isomorphism. *Compos. Math.*, 152(8):1740–1776, 2016
4. P. Balmer and B. Sanders. The spectrum of the equivariant stable homotopy category of a finite group. *Invent. Math.*, to appear, 2016
5. I. Dell’Ambrogio and B. Sanders. A note on triangulated monads and categories of module spectra. Preprint, 5 pages, available online at arXiv:1610.08387, 2016
6. B. Sanders. The compactness locus of a geometric functor and the formal construction of the Adams isomorphism. Preprint, 41 pages, available online at arXiv:1610.08392, 2016

INVITED TALKS

- 2016 “The Adams isomorphism as a generalized Wirthmüller isomorphism.” Geometric and Topological Aspects of the Representation Theory of Finite Groups, Pacific Institute for the Mathematical Sciences, University of British Columbia, August 1.
- 2016 “The Adams isomorphism as a generalized Wirthmüller isomorphism.” Triangulated Categories and Applications, Banff International Research Station, June 23.
- 2016 “Grothendieck-Neeman duality and the Wirthmüller isomorphism.” Representation Theory Seminar, University of Bonn, June 10.
- 2016 “Reconciling the reconstruction theorems of Bondal-Orlov and Balmer.” Triangulated Categories and Geometry, University of Bielefeld, March 2.
- 2015 “The spectrum of the equivariant stable homotopy category.” Topology Seminar, University of Lille, October 2.
- 2015 “Grothendieck-Neeman duality and the Wirthmüller isomorphism.” Opening perspectives in Algebra, Representations, and Topology, Centre de Recerca Matemàtica, Barcelona, May 27.
- 2015 “The spectrum of the equivariant stable homotopy category.” Cohomology of Finite Groups: Interactions and Applications, Oberwolfach Research Institute for Mathematics, May 7.
- 2014 “Restriction to a subgroup as an étale localization.” Algebraic Topology Seminar, University of Chicago, February 18.

TEACHING EXPERIENCE

Lecturer, Department of Mathematical Sciences, University of Copenhagen

Homological Algebra (Winter 2016, Winter 2015)

Teaching Assistant, Department of Mathematical Sciences, University of Copenhagen

Homological Algebra (Winter 2014)

Teaching Assistant, Department of Mathematics, University of California, Los Angeles

Graduate Algebra (Winter 2013, Fall 2012)

History of Mathematics (Winter 2012, Winter 2011, Winter 2009)

Complex Analysis for Applications (Fall 2010, Spring 2010)

Calculus of Several Variables (Spring 2011, Winter 2010, Spring 2009)

Integration and Infinite Series (Fall 2011)

Precalculus (Fall 2011, Fall 2009)

Teaching Assistant, School of Computer Science and Engineering, University of New South Wales

Algorithms and Programming Techniques (March–June 2007)

Professional Issues and Ethics in Computer Science (August–November 2006)

Data Organisation (March–June 2006)

SUPERVISION

- 2016 Masters thesis: Rolf Jørgensen. Stratifying modular representations (expected April 2017).
- 2016 Masters thesis: William K. Larsen. Derivators and stable derivators (August 2016).
- 2016 Undergraduate reading course: Sheaves and Verdier duality (two students).

PROFESSIONAL ACTIVITY

- 2014–present Referee: *Advances in Mathematics*, *Archiv der Mathematik*, *Bulletin of the London Mathematical Society*.
- 2010 Representative of the Math and Physical Sciences Council on the UCLA Graduate Writing Center Oversight Committee.

FELLOWSHIPS AND AWARDS

- 2015 Oberwolfach Leibniz Graduate Student (OWLG) Grant
- 2013 Dissertation Year Fellowship, UCLA
- 2010 Chancellor's Prize, UCLA
- 2009 Chancellor's Prize, UCLA
- 2007 University Medal in Pure Mathematics, UNSW
- 2007 World Finalist, ACM International Collegiate Programming Contest
- 2006 Second Place, ACM South Pacific Regional Programming Contest
- 2005 The Canon Information Systems Research Prize, UNSW
- 2004 The Mathews Scholarship, UNSW