

Benjamin Böhme

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Positions

- **Rheinische Friedrich-Wilhelms-Universität Bonn** since 2018
Postdoc (“Wissenschaftlicher Mitarbeiter”) (ongoing)

Education

- **University of Copenhagen** 2015 - 2018
Ph.D. Mathematics
Ph.D. Thesis: *Equivariant multiplications and idempotent splittings of G -spectra*
Advisor: Prof. Jesper Grodal
- **Rheinische Friedrich-Wilhelms-Universität Bonn** 2013 - 2015
M.Sc. Mathematics
Master’s Thesis: *Global model structures for $*$ -modules*
March 2015. Available at boehme.sites.ku.dk.
Advisor: Prof. Stefan Schwede
- **Ruhr-Universität Bochum** 2009 - 2013
B.Sc. Mathematics
Bachelor’s Thesis: *Adams-Operationen und Existenz von reellen Divisionsalgebren*
February 2013. Available at boehme.sites.ku.dk.
Advisor: Prof. Gerd Laures

Publications

1. Benjamin Böhme, *Idempotent characters and equivariantly multiplicative splittings of K -theory*. Preprint, 19 pages. arXiv:1808.09832.
2. Benjamin Böhme, *Norms in the idempotent splittings of the Burnside ring and the G -sphere spectrum*. Adv. Math. 347 (2019), 904-939
3. Benjamin Böhme, *Global model structures for $*$ -modules*. Homology Homotopy Appl. 21 (2019), no. 2, 213-230.

Grants and Awards

PhD Fellow at the Centre for Symmetry and Deformation, Copenhagen 2015-2018
Stipend from the Deutsche Studienstiftung (German Study Foundation) 2011-2015

Teaching

- *Universität Bonn (as a postdoc)*
 - Algebraic Topology II – Lecturer, Summer 2019
 - Graduate seminar “Steenrod operations and homotopy groups of spheres” – Examiner, Summer 2019
 - Algebraic Topology I – Assistant, Winter 2018/19
 - Linearität in Algebra und Analysis (Master of Education) – Assistant, Winter 2018/19
- *University of Copenhagen*
 - Categories and Topology – Teaching Assistant, Fall 2017
 - Introduktion til det matematiske fag (Introduction to Mathematics) – Assistant, Fall 2017
 - Introduktion til det matematiske fag (Introduction to Mathematics) – Assistant, Fall 2016
- *Universität Bonn (as a Master’s student)*
 - Representation Theory of Lie Algebras – Teaching Assistant, Summer 2015
 - Lineare Algebra II – Teaching Assistant, Summer 2013
- *Ruhr-Universität Bochum*
 - Lineare Algebra I – Teaching Assistant, Winter 2012/13
 - Funktionentheorie I (Complex Analysis I) – Teaching Assistant, Summer 2012
 - Analysis III (Calculus III) – Teaching Assistant, Winter 2011/12
 - Analysis II (Calculus II) – Corrector, Summer 2011
 - Analysis I (Calculus I) – Corrector, Winter 2010/11

Students

- U. Flock, *Smith theory and the localization theorem* – Bachelor’s Thesis, Bonn. Expected June 2019
- A. Yalçınoğlu, *Complex oriented cohomology theories* – Bachelor’s Thesis, Bonn, Expected June 2019

Research Talks

- *Idempotent splittings of G -equivariant commutative ring spectra* – Topology Seminar, Universität Bonn. Bonn, December 2018
- *Equivariant multiplications and splittings of G -spectra* – Topology Seminar, Ruhr-Universität Bochum. Bochum, November 2018
- *Equivariant multiplications and idempotent splittings of G -spectra* – Homotopy harnessing higher structures, Isaac Newton Institute. Cambridge, October 2018

- *Equivariantly multiplicative splittings of the sphere and of topological K-theory* – Young Topologists Meeting, University of Copenhagen. Copenhagen, July 2018
- *Norms in the idempotent splittings of the Burnside ring and the G-sphere spectrum* – Algebra & Topology seminar, University of Copenhagen. Copenhagen, February 2018
- *Norms in the idempotent splittings of the Burnside ring and the G-sphere spectrum* – EPFL topology seminar. Lausanne, February 2018
- *Norm maps and localization of G-spectra* – Motivic and Equivariant Homotopy Theory. Workshop at the University of Osnabrück, October 2017
- *The Dress splitting and equivariant commutative multiplications* – Fusion Systems and Algebraic Topology. Workshop at the Hausdorff Institute for Mathematics, Bonn, November 2016
- *Global model structures for *-modules* – Master’s Thesis Defense. Universität Bonn, November 2016

Expository Talks

- *Lewis’ paradox* – Lecture. University of Copenhagen, January 2018
- *The Landweber Exactness Theorem* – Lecture. University of Copenhagen, January 2017
- *Topological K-Theory and Adams Operations* – Lecture. University of Copenhagen, December 2016
- *What is... the Kervaire Invariant?* – “What is...”-Seminar. University of Copenhagen, June 2016
- *Thinking Equivariantly* – PhD student’s seminar. Copenhagen, June 2016
- *Geometric fixed points and the HHR norm* – Talbot Workshop 2016. Herriman, UT, United States, April 2016
- *A brief course in model categories* – Basic Notions Seminar. Universität Bonn, November 2014
- *Adams Operations and Representations of the Symmetric Groups* – Basic Notions Seminar. Universität Bonn, May 2014

Participation in Workshops and Conferences

- **Equivariant and motivic homotopy theory** Cambridge, UK
“Homotopy Harnessing Higher Structures”, Isaac Newton Institute August 13-17, 2018
- **Berlin Homotopy Summer** Berlin, Germany
Two workshops and conferences at the Berlin Mathematical School June 18-29, 2018
- **Rigidity and Algebraic Models in Stable Homotopy Theory** Copenhagen, Denmark
Master Class at the University of Copenhagen April 9-13, 2018
- **Tensor Triangular Geometry and Equivariant Homotopy Theory** Copenhagen, Denmark
Master Class at the University of Copenhagen March 12-16, 2018
- **Motivic and Equivariant Homotopy Theory** Osnabrück, Germany
Workshop at the University of Osnabrück October 4-7, 2017

- **Infinity Operads** Osnabrück, Germany
Workshop at the University of Osnabrück *July 12-14, 2017*
- **Algebraic Topology and Representation Theory** Lille, France
Conference at the Université Lille 1 *June 26-30, 2017*
- **Cohomology of Arithmetic Groups** Copenhagen, Denmark
Master Class at the University of Copenhagen *May 8-11, 2017*
- **Invertibility and Duality** Regensburg, Germany
Conference at the University of Regensburg *April 3-7, 2017*
- **Stratifications and Duality in Modular Representation Theory** Copenhagen, Denmark
Master Class at the University of Copenhagen *March 27-31, 2017*
- **Fusion Systems and Algebraic Topology** Bonn, Germany
Workshop at the Hausdorff Institute for Mathematics *November 21-25, 2016*
- **Young Topologists Meeting 2016** Copenhagen, Denmark
Conference at the University of Copenhagen *July 4-8, 2016*
- **Talbot 2016** Herriman, UT, United States
Workshop on equivariant stable homotopy theory *April 4-8, 2016*
- **Homotopy Theory, Manifolds and Field Theories** Bonn, Germany
Trimester Program at the Hausdorff Institute for Mathematics *May-August, 2015*

Organization of Events

- **Young Topologists' Meeting 2016** Copenhagen, Denmark
Conference on algebraic topology July 4-8, 2016
- **Pretalks for the Algebraic Topology Seminar** Copenhagen, Denmark
Pretalks aimed at graduate students January - June 2016
- **PHI: Philosophisch - Historisch - Interdisziplinär** Bochum, Germany
Student-organized lecture series on the philosophy and history of mathematics Summer 2012