

## Curriculum Vitae

Name: Dr. Fabian Hebestreit  
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Date of Birth: 14.08.1989

### Education

07/2006 Abitur, Ratsgymnasium Osnabrück  
10/2006 - 12/2010 Studies of Mathematics and Computer Science  
Universität Osnabrück  
12/2010 Diploma in Mathematics, Universität Osnabrück  
Advisors: Oliver Röndigs, Manfred Stelzer.  
*On topological realisation at odd primes*  
01/2011 - 07/2014 Graduate studies in Mathematics, WWU Münster  
research group 'Topology'  
07/2014 Doctorate in Mathematics, WWU Münster  
Advisor: Michael Joachim.  
*Twisted Spin Cobordism*

### Employment

10/2007 - 09/2010 Student assistant, Universität Osnabrück  
01/2011 - 08/2014 Research assistant, WWU Münster  
09/2014 - 08/2015 Research visitor, University of Notre Dame  
10/2015 - Postdoctoral research fellow, University of Bonn

### Awards

02/2008 - 12/2010 Scholarship, Studienstiftung des Deutschen Volkes  
08/2014 Oberwolfach Leibniz Travel Grant

09/2014 - 08/2015 Scholarship, Deutscher akademischer Austauschdienst

## Research Interests

Geometric & Algebraic Topology, both with a view towards Differential Geometry

## Publications and Preprints

S. Büscher, F. Hebestreit, O. Röndigs, M. Stelzer.  
*The Arone-Goodwillie spectral sequence for  $\Sigma^\infty\Omega^n$  and topological realization at odd primes*  
Algebraic & Geometric Topology **13**, no. 1, pp. 127 - 169 (2013)

F. Hebestreit, M. Joachim.  
*Twisted Spin cobordism and positive scalar curvature*  
arXiv:1311.3164 (2014, submitted)

F. Hebestreit.  
*Twisted Spin cobordism* (extended abstract)  
Oberwolfach Reports **11**, no. 3, Workshop: Analysis, Geometry and Topology of positive scalar curvature, pp. 2013 - 2014 (2014)

## Research Visits

04/2013 with Stefan Stolz at the University of Notre Dame  
02/2014 with Peter May at the University of Chicago  
02/2014 - 03/2014 with Stefan Stolz at the University of Notre Dame  
01/2015 with Michael Joachim at WWU Münster  
05/2015 with Boris Botvinnik at University of Oregon  
12/2016 with Michael Joachim at WWU Münster

## Invited Talks

01/2011 *Topological Realisation at odd primes*, Topology seminar, WWU Münster  
06/2012 *The Bordism Approach to scalar Curvature*, Topology and Algebra seminar, Universität Osnabrück  
10/2013 *Twisted spin cobordism*, Conference 'Twists, generalised cohomology and applications', WWU Münster

- 02/2014 *Twisted spin cobordism and positive scalar curvature*,  
Topology seminar, University of Chicago
- 03/2014 *Twisted spin cobordism and positive scalar curvature*,  
Topology seminar, University of Notre Dame
- 03/2014 *Twisted spin cobordism and positive scalar curvature*,  
Topology seminar, Johns Hopkins University
- 03/2015 *Twisted spin cobordism and positive scalar curvature*,  
Topology seminar, University of Minnesota
- 05/2015 *Twisted spin cobordism and positive scalar curvature*,  
Topology seminar, University of Oregon
- 08/2015 *Twisted spin cobordism and positive scalar curvature II*,  
Topology seminar, University of Notre Dame

### Organised Meetings

- 10/2013 co-organised Summer School ‘Field theories, conformal nets and Kac-Moody groups’, with Alan Carey, Michael Joachim & Daniel Kasprowski  
Speakers: André Henriques, Nitu Kitchloo & Stephan Stolz
- 06/2014 co-organised Summer School ‘Surgery and its applications in geometry’, with Daniel Kasprowski  
Speakers: Diarmuid Crowley, Frank Quinn, Oscar Randal-Williams & Thomas Schick

### Contributed Talks

- 01/2011 *Topological Realisation at odd primes*, Oberseminar Topologie, WWU Münster
- 01/2011 *Topological Realisation at odd primes*, Topology and Algebra Seminar, Universität Osnabrück
- 07/2011 *An introduction to the Gromov-Lawson-Rosenberg Conjecture*, ‘SFB Conference’, WWU Münster
- 07/2012 *The Bordism Approach to scalar Curvature*, ‘Young Topologists Meeting 2012’, Centre for Symmetry and Deformation, Kopenhagen
- 09/2012 *N. Kuhn’s finiteness conjecture for cohomology*, Studierendenkonferenz der DMV-Jahrestagung, Universität des Saarlandes, Saarbrücken
- 03/2013 *Twisted Spin bordism and positive scalar curvature*, ‘Leray-Seminar’, WWU Münster

04/2013	<i>Twisted Spin bordism and positive scalar curvature</i> , '11th Annual Graduate Student Topology and Geometry Conference', University of Notre Dame, South Bend
06/2013	<i>Twisted Spin bordism and positive scalar curvature</i> , 'Young Researchers in Mathematics 2013', University of Edinburgh
08/2014	<i>Twisted Spin Cobordism</i> , 'Analysis, Geometry and Topology of positive scalar curvature', Mathematisches Forschungsinstitut Oberwolfach

### Teaching

WS 07/08	Elemente der Algebra (Rainer Vogt) Universität Osnabrück, student assistant
SS 08	Mathematik II (Tim Römer) Universität Osnabrück, student assistant
10/08	Training in Tutoring Universität Osnabrück
WS 08/09	Reelle und Angewandte Analysis (Peter Meyer-Nieberg), Elemente der Analysis (Rainer Vogt) Universität Osnabrück, student assistant
SS 09	Funktionentheorie (Rainer Vogt), Einführung in die Algebra (Holger Brenner) Universität Osnabrück, student assistant
WS 09/10	Reelle und Angewandte Analysis (Peter Meyer-Nieberg), Elemente der Zahlentheorie (Rainer Vogt) Universität Osnabrück, student assistant
SS 10	Diskrete Mathematik (Tim Römer), Elemente der Geometrie (Winfried Bruns) Universität Osnabrück, student assistant
SS 11	Algebraische Topologie (Christian Ausoni) WWU Münster, exercise course
WS 11/12	Algebraische Topologie II (Christian Ausoni) WWU Münster, exercise course
SS 12	Die Steenrod-Algebra und ihre Anwendungen (Christian Ausoni) WWU Münster, exercise course
WS 12/13	Funktionentheorie II (Michael Joachim) WWU Münster, exercise course

SS 13	Funktionentheorie III (Michael Joachim) WWU Münster, exercise course
WS 13/14	Elements of Hodge-theory (joint with Michael Joachim) WWU Münster, seminar
SS 14	Platonische und Archimedische Körper (joint with Urs Hartl) WWU Münster, seminar
WS 15/16	Lineare Algebra I (Jens Franke) Universität Bonn (exercise course)

### **Conferences and Workshops**

07/2008	Participation in Workshop ‘Das Prinzip der kleinsten Wirkung’, Studienstiftung des Deutschen Volkes, Salem
06/2009	Attendance of Conference ‘Geometry and Topology’, WWU Münster
12/2009	Attendance of Conference ‘PhD Students Conference Tropical Geometry’, TU Berlin
05/2010	Attendance of Conference ‘13. NRW Topology Meeting’, Universität Osnabrück
09/2010	Attendance of Conference ‘Positive Scalar Curvature’, WWU Münster
09/2010	Participation in Workshop ‘Der Indexsatz von Atiyah und Singer’, Studienstiftung des Deutschen Volkes, Guidel
07/2011	Attendance of Workshop ‘Manifolds and Groups’, WWU Münster
07/2011	Attendance of Workshop ‘Curvature and Global Shape’, WWU Münster
08/2011	Attendance of Conference ‘Structured Ring Spectra’, Universität Hamburg
11/2011	Attendance of Conference ‘16. NRW Topology Meeting’, RU Bochum
03/2012	Participation in Workshop ‘Blockseminar Surgery Theory’, Universität Regensburg
04/2012	Attendance of Conference ‘17. NRW Topology Meeting’, WWU Münster

05/2012	Participation in Workshop ‘Surgery Theory’, Mathematisches Forschungsinstitut Oberwolfach
06/2012	Attendance of Conference ‘Riemannian Topology’, Université de Fribourg
07/2012	Participation in Conference ‘Young Topologists Meeting 2012’, Centre for Symmetry and Deformation, Copenhagen
08/2012	Attendance of Conference ‘Strings and automorphic Forms in Topology’, RU Bochum
09/2012	Participation in Conference ‘DMV-Jahrestagung’, Universität des Saarlandes
09/2012	Attendance of Workshop ‘Geometric group theory’, WWU Münster
10/2012	Attendance of Conference ‘Quillen Memorial Conference’, Massachusetts Institute of Technology, Cambridge
11/2012	Attendance of Conference ‘18. NRW Topology Meeting’, Universität Bielefeld
12/2012	Attendance of Workshop ‘Geometric Dynamic Days’, WWU Münster
04/2013	Participation in Workshop ‘11th Annual Graduate Student Topology & Geometry Conference’, University of Notre Dame, South Bend
05/2013	Attendance of Conference ‘19. NRW Topology Meeting’, Universität Osnabrück
05/2013	Attendance of Conference ‘11. Mathematische Arbeitstagung’, Max-Planck-Institut Bonn
06/2013	Participation in Conference ‘Young Researchers in Mathematics 2013’, University of Edinburgh
08/2013	Participation in Workshop ‘Topology of high-dimensional manifolds’, Hausdorff Institut Bonn
10/2013	Organisation of Workshop ‘Field theories, conformal nets and Kac-Moody groups’, WWU Münster
10/2013	Participation in Conference ‘Twists, generalised cohomology and applications’, WWU Münster
11/2013	Attendance of Conference ‘20. NRW Topology Meeting’, Max-Planck-Institut Bonn

02/2014	Attendance of Conference ‘Introductory Workshop: Algebraic Topology’, Mathematical Sciences Research Institute, Berkeley
05/2014	Attendance of Conference ‘21. NRW Topology Meeting’, Bergische Universität at Wuppertal
06/2014	Organisation of Workshop ‘Surgery theory and its applications in geometry’, WWU Münster
06/2014	Attendance of Conference ‘Young Topologists Meeting 2014’, Centre for Symmetry and Deformation, Copenhagen
08/2014	Participation in Workshop ‘Analysis, Geometry and Topology of positive scalar curvature’, Mathematisches Forschungsinstitut Oberwolfach
10/2014	Attendance of Conference ‘Fall 2014 Midwest Topology Seminar’, Northwestern University, Evanston
02/2015	Attendance of Conference ‘Winter 2015 Midwest Topology Seminar’, University of Illinois at Chicago
05/2015	Attendance of Conference ‘Spring 2015 Midwest Topology Seminar’, University of Chicago
05/2015	Attendance of Conference ‘2015 Lehigh University Geometry and Topology Conference’, Lehigh University, Bethlehem
08/2015	Attendance of Conference ‘Geometry and Topology’, Hausdorff Institut, Bonn
09/2015	Attendance of Conference ‘Algebraic Topology: manifolds unlocking higher structure’, University of Oxford