

CONTACT INFORMATION

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RESEARCH INTERESTS

Algebraic topology, homotopy theory, and related fields.

EMPLOYMENT

Assistant Professor, University of Regina, July 2018 – present.

Research Fellow, Universität Osnabrück, Jan. 2016 – June 2018.

Postdoctoral Fellow, University of Western Ontario, 2013 – 2015.

Visiting Assistant Professor, University of Illinois at Urbana-Champaign, 2010 – 2013.

GUEST POSITIONS

Max-Planck-Institut für Mathematik Bonn, June – Aug. 2012, Sep. – Dec. 2015, and shorter visits.

EDUCATION

Ph.D. Pure Mathematics, Massachusetts Institute of Technology, 2006 – 2010. Advisor: Haynes R. Miller.

M.Sc. Mathematics, Université de Montréal, 2003 – 2005.

B.Sc. Mathematics, Université de Montréal, 2000 – 2003.

SELECTED PUBLICATIONS

Papers in refereed journals

- H.J. Baues and M. Frankland. Eilenberg–MacLane mapping algebras and higher distributivity up to homotopy. *New York J. Math.* 23 (2017), 1539–1580.
- J.D. Christensen and M. Frankland. Higher Toda brackets and the Adams spectral sequence in triangulated categories. *Algebr. Geom. Topol.* 17-5 (2017), 2687–2735.
- H.J. Baues and M. Frankland. 2-track algebras and the Adams spectral sequence. *J. Homotopy Relat. Struct.* 11 (2016), no. 4, 679–713.
- T. Barthel and M. Frankland. Completed power operations for Morava E -theory. *Algebr. Geom. Topol.* 15-4 (2015), 2065–2131.
- M. Frankland. Behavior of Quillen (co)homology with respect to adjunctions. *Homology Homotopy Appl.* 17 (2015), no. 1, 67–109.
- H.J. Baues and M. Frankland. The realizability of operations on homotopy groups concentrated in two degrees. *J. Homotopy Relat. Struct.* 10 (2015), no. 4, 843–873.
- M. Frankland. Moduli spaces of 2-stage Postnikov systems. *Topology Appl.* 158 (2011), 1296–1306.
- M. Frankland. Théorème de Künneth en homologie de Morse. *Ann. Sci. Math. Québec* 31 (2007), no. 1, 31–39.

Submitted papers

- M. Frankland and M. Spitzweck. Towards the dual motivic Steenrod algebra in positive characteristic.

TEACHING EXPERIENCE

Regina

- Vector Calculus, Fall 2018.

Osnabrück

- Algebraische Topologie (graduate, in German), Winter 2016/17.

Western Ontario

- Algebraic Topology (graduate), Winter 2015.
- Advanced Calculus I, Fall 2014*.
- Methods of Finite Mathematics, Winter 2014.
- Intermediate Calculus I, Fall 2013.

**Students' Council Teaching Honour Roll, 2014 – 2015.*

Urbana-Champaign

- Homotopy Theory (graduate), Spring 2013*.
- General Topology (graduate), Fall 2012*.
- Calculus III, Spring 2012.
- Abstract Linear Algebra, Fall 2011.
- Intro Differential Equations (two sections), Spring 2011.
- Applied Linear Algebra, Fall 2010.
- Elementary Linear Algebra, Fall 2010.

**List of Teachers Ranked as Excellent.*

SELECTED TALKS

- Session on Topology, CMS Meeting, Vancouver, Dec. 2018.
- University of British Columbia Topology Seminar, Dec. 2018.
- University of Washington Topology Seminar, Nov. 2018.
- Adam Mickiewicz University in Poznań Geometry and Topology Seminar, July 2018.
- Topology Meeting, University of Oslo, May 2018.
- Workshop on Homotopy Theory, Universität Regensburg, May 2018.
- University of North Carolina Wilmington, March 2018.
- University of Louisiana at Lafayette Mathematics Colloquium, March 2018.
- Georgia Southern University, March 2018.
- University of Regina, March 2018.
- EPFL Topology Seminar, Lausanne, Oct. 2017.
- Homotopy Theory: Tools and Applications, UIUC, July 2017.
- Adam Mickiewicz University in Poznań Geometry and Topology Seminar, June 2017.
- Universität Regensburg Arbeitsgruppenseminar Prof. Bunke, Dec. 2016.
- Colloque GDR “Topologie algébrique et applications”, Amiens, France, Oct. 2016.
- Combinatorial Structures in Geometry, Universität Osnabrück, Aug. 2016.
- University of Copenhagen Algebra/Topology Seminar, June 2016.
- Operations in Highly Structured Homology Theories, Banff, May 2016.
- Westfälische Wilhelms-Universität Münster Oberseminar Topologie, April 2016.
- University of Edinburgh Topology Seminar, March 2016.
- Newcastle University Algebra & Geometry Seminar, March 2016.
- 24th NRW Topology Meeting, Ruhr-Universität Bochum, Nov. 2015.
- Max-Planck-Institut für Mathematik Oberseminar, Oct. 2015.
- Wayne State University Topology Seminar, Nov. 2014.
- Wayne State University Mathematics Colloquium, Nov. 2014.
- Session on Homotopy Theory, Joint Mathematics Meetings, Baltimore, Jan. 2014.
- Ohio State University Topology Seminar, March 2013.
- Purdue University Topology Seminar, Nov. 2012.
- Ruhr-Universität Bochum Oberseminar Topologie, Nov. 2012.
- Strings and Automorphic Forms in Topology, Ruhr-Universität Bochum, Aug. 2012.
- University of Haifa Geometry and Topology Seminar, July 2012.
- Session on Homotopy Theory, CMS Meeting, Regina, June 2012.

GRANTS AND FELLOWSHIPS

- Grant from the DFG-SPP “Homotopy Theory and Algebraic Geometry” for the Workshop on Motivic and Equivariant Homotopy Theory, Osnabrück, 2017.
- FQRNT Postdoctoral Research Scholarship, 2011 – 2013.
- FQRNT Doctoral Research Scholarship, 2008 – 2009.
- NSERC Doctoral Postgraduate Scholarship, 2006 – 2008.
- NSERC Julie-Payette Master’s Scholarship, 2003 – 2005.
- NSERC Undergraduate Student Research Award, Summers 2001 and 2002.

AWARDS AND PRIZES

Université de Montréal

- Bank of Montreal scholarship, 2004.
- Governor General’s Academic Medal (best undergraduate student), 2003.
- Jean-Maranda Prize (best graduating math major), 2003.
- Department of Mathematics Study Abroad Scholarship, Fall 2002.
- Maurice-L’Abbé Prize (best mid-program math major), 2002.

SERVICE

- Organizer of the University of Regina Topology Seminar, 2018 – present.
- Co-organizer of the Workshop on Motivic and Equivariant Homotopy Theory, Osnabrück, Oct. 2017.
- Member of the Ph.D. commission for two graduate students, Osnabrück, 2016.
- Co-organizer of the Fall 2016 NRW Topology Meeting in Osnabrück.
- Reviewer for MathSciNet, 2015 – present.
- Reviewer for Zentralblatt MATH, 2011 – 2018.
- Referee for: Advances in Mathematics; Algebraic & Geometric Topology; Compositio Mathematica; Homology, Homotopy and Applications; Journal of Homotopy and Related Structures; Proceedings of the LMS; Theory and Applications of Categories.
- Referee for the Shota Rustaveli National Science Foundation of Georgia.
- Organizer of the Homotopy Theory Topics Seminar, UWO, 2013 – 2015.
- Co-organizer of the Winter 2013 Midwest Topology Seminar at UIUC, Feb. 2013.
- Organizer of the UIUC Topology Seminar, 2011 – 2013.
- Organizer of the Topics Seminar in Algebraic Topology, UIUC, Spring 2011.

OTHER EMPLOYMENT

Helmholtz-Gymnasium Essen, Germany, 2005 – 2006.

- Assistant teacher of French for grades 7 to 13, with emphasis on oral communication.

MISCELLANEOUS

Citizenship: Canadian.

Languages: Fluent in French and English; fluent in German (Goethe-Zertifikat C2).

Computer skills: Proficient in \LaTeX . Some experience with Mathematica, Matlab, Maple, SageMath, Java, C++, C, Visual Basic, and html.

Memberships: American Mathematical Society, Canadian Mathematical Society, Association Mathématique du Québec.

REFERENCES

Markus Spitzweck

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Teaching references

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