Gabriel J. Angelini-Knoll

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Employment

2019-Present	*Postdoctoral Researcher*, Freie Universität, Berlin
2017-2019	*Postdoctoral Researcher*, Michigan State University, Lansing, Michigan

Education

2017	PHD in Mathematics, Wayne State University, Detroit, Michigan
2013	MA in Mathematics, Wayne State University, Detroit, Michigan
2011	BA in Mathematics, Kalamazoo College, Kalamazoo, Michigan
2011	BA in Psychology, Kalamazoo College, Kalamazoo, Michigan

Papers

PUBLICATIONS

2018   Gabe Angelini-Knoll and Andrew Salch (2018), "A May-type spectral sequence for higher topological Hochschild homology" *Algebraic & Geometric Topology* **18** no. 5, 2593–2660.

PREPRINTS UNDER REVIEW

2020   Gabriel Angelini-Knoll and Andrew Salch, "Commuting unbounded homotopy limits with Morava K-theory," submitted, arXiv:2003.03510.

2019   Gabriel Angelini-Knoll and J.D. Quigley, "Chromatic complexity of the algebraic K-theory of the Thom spectra $y(n)$," submitted, arXiv:1810.10088.

2018   Gabriel Angelini-Knoll, "Detecting the β-family in iterated algebraic K-theory of finite fields," *submitted*, arXiv:1810.10088.

2017   Gabriel Angelini-Knoll and J.D. Quigley, "The Segal Conjecture for topological Hochschild homology of the Ravenel spectra $X(n)$ and $T(n)$," *submitted*, arXiv:1705.03343.

2016   Gabriel Angelini-Knoll, "On topological Hochschild homology of the K(1)-local sphere," *submitted*, arXiv:1612.00548.

Preprints in preparation

2020   Gabriel Angelini-Knoll and Dominic Culver, "Topological Hochschild homology of the height two truncated Brown-Peterson spectrum." *in preparation.*

2020   Gabriel Angelini-Knoll, Teena Gerhardt, and Mike Hill "Real topological Hochschild homology and Witt vectors for rings with anti-involution." *in preparation.*

Talks

Seminar talks

2020   Topology Seminar, Universität Hamburg[1] (May 2020)

Topology Seminar, École polytechnique fédérale de Lausanne (April 2020)

Geometry and Topology Seminar, University of Pennsilvania[1] (March 2020)

Topology Seminar, Massachusetts Institute of Technology (March 2020)

2019   Topology Seminar, Freie Universität, Berlin, Germany (May 2019)

Algebraic Topology Seminar, University of California, Los Angeles (May 2019)

Topology Seminar, University of Illinois Urbana-Champaign (April 2019)

Topology Seminar, Northwestern University (March 2019)

Electronic Computational Homotopy Theory Seminar (January 2019)

2017   Topology Seminar, University of Kentucky (November 2017

Topology Seminar, Johns Hopkins (February 2017)

Topology Seminar, University of Chicago (February 2017)

2016   Topology Seminar, Notre Dame (December 2016)

Topology Seminar, Michigan State University (November 2016)

Topology Seminar, Indiana University (November 2016)

Topology Seminar, University of Illinois Urbana-Champaign (March 2016)

K-theory Seminar, Ohio State University (February 2016)

Conference and workshop talks

2020   Equivariant Stable Homotopy Theory and p-adic Hodge Theory, BIRS, Banff, Canada (March 2020)

2019   LG&TBQ Conference at University of Michigan, Ann Arbor (June 2019)

AMS Sectional, University of Hawaii at Manoa (March 2019)

2018   Kerz-Strunk-Tamme's Proof of Weibel's Conjecture, University of Illinois at Chicago[2] (May 2018)

AMS Sectional, Ohio State University (March 2018)

2017   Midwest Topology Conference, Wayne State University (November 2017)

Transatlantic Transchromatic Homotopy theory conference, University of Regensberg (June 2017)

Talbot workshop: Obstruction Theory, Gooding, Idaho.[2] (May 2017)

AMS Sectional: Bloomington, Indiana (April 2017)

2016   Graduate Student Geometry and Topology Conference, Indiana University (April 2016)

2015   Young Topologists' Meeting, École Polytechnique Fédérale de (July 2015)

European Talbot Workshop: Invariants of Structured Ring Spectra, Switzerland[2] (July 2015)

Graduate Student Geometry and Topology Conference, UIUC (March 2015)

2014   MSRI Summer School in Algebraic Topology, CIMAT, Guanajuato, MX[2] (July 2014)

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[1] Invited seminar talk, postponed due to Covid-19

[2] Expository talk.

2018	REU in experimental mathematics, Michigan State University (June 2018)
2017	Math Club, University of Kentucky (November 2017)
2014	Undergraduate seminar, Kalamazoo College (February 2014)
2013	Undergraduate seminar, Wayne State University (December 2013)

Teaching

Freie Universität Berlin

Winter 2020/21	Algebraic K-theory, taught as primary instructor
	Forschungsmodul: Topologie: Equivariant stable homotopy theory, with Prof. Dr. Elmar Vogt
	Forschungsseminar Geometrie und Topologie: TBD with Prof. Dr. Holger Reich
Summer 2020	Forschungsmodul: Topologie: Cohomology of Groups, with Prof. Dr. Elmar Vogt
	Aufbaumodul: Topologie III, Teaching assistant for Prof. Dr. Holger Reich
	Forschungsseminar Geometrie und Topologie: K-theory of pullbacks, with Prof. Dr. Holger Reich
Winter 2019/20	Seminar zur Topologie: Simplicial Methods in Topology, with Prof. Dr. Elmar Vogt
	Basismodul: Topologie II, Teaching assistant for Prof. Dr. Holger Reich
	Forschungsseminar Geometrie und Topologie: Chromatic homotopy theory, with Prof. Dr. Holger Reich

Michigan State University

Winter 2019	MTH 961 – Algebraic Topology II: homotopy theory, spectral sequences, and characteristic classes
Fall 2018	MTH 132 – Calculus I: A first course in calculus for engineering majors
Winter 2018	MTH 310 – Abstract Algebra I and Number Theory: A first course on ring theory
Winter 2018	Seminar on Algebraic K-theory, organized with Nathan Grieve
Fall 2017	MTH 124 – Business Calculus, Section 01: A first course in calculus for Business majors
Fall 2017	MTH 124 – Business Calculus, Section 13: A first course in calculus for Business majors

Wayne State University

Fall 2015	MAT 1050 – Intermediate Algebra with Trigonometry: An elementary college algebra course
Winter 2015	MAT 1050 – Intermediate Algebra with Trigonometry: An elementary college algebra course
Winter 2014	MAT 1050 – Intermediate Algebra with Trigonometry: An elementary college algebra course
Fall 2013	MAT 1800 – Elementary Functions: A course in precalculus
Summer 2013	STAT 1020 – Elementary Statistics: A first course in statistics and probability
Summer 2013	MAT 1000 – Math in Today's World: A quantitative literacy course
Winter 2013	MAT 1800 – Elementary Functions: A course in precalculus
Fall 2012	MAT 1800 – Elementary Functions: A course in precalculus
Summer 2012	MAT 1000 – Math in Today's World: A quantitative literacy course

Undergraduate Research

Summer 2019	Undergraduate research mentor – NSF and NSA funded SURIEM REU at MSU
Winter 2019	Undergraduate research project mentor – Discovering America program MSU, with Dr. Teena Gerhardt

Service

Conference organization

2019	Co-organizer for AMS Sectional Meeting on Homotopy theory, University of Wisconsin-Madison (September 2019) Co-organizer for Midwest Topology Conference, Michigan State University (May 2019)

Teaching mentorship

Fall 2018	Teaching Mentor for incoming Graduate Teaching Assistants, Michigan State University
Fall 2015	Teaching Mentor for incoming Graduate Teaching Assistants, Wayne State University
Fall 2013	Teaching Mentor for incoming Graduate Teaching Assistants, Wayne State University
Summer 2013	Course coordinator for Math in Today's World, Wayne State University

Awards

April 2017	The Dr. Chorng-Shi Houh Award, Wayne State University
August 2016	Rumble Fellowship, Wayne State University
April 2016	Karl W. and Helen L. Folley Endowed Mathematics Scholarship, Wayne State University
April 2015	Robert and Nancy Irvan Endowed Scholarship in Mathematics, Wayne State University
April 2014	The Maurice J. Zelonka Endowed Mathematics Scholarship, Wayne State University
April 2013	The Alfred L. Nelson Award, Wayne State University
April 2012	The Sheila Sparbeck Award, Wayne State University