

Vitaly Lorman

University of Rochester
919 Hylan Building
Rochester, NY, 14627

Email: vlorman@ur.rochester.edu
Homepage: web.math.rochester.edu/people/faculty/vlorman/

Academic Appointments

Visiting Assistant Professor, University of Rochester, July 2017-
Postdoctoral Fellow, Johns Hopkins University, May 2016-May 2017

Education

Ph.D. in mathematics, Johns Hopkins University, May 2016
Thesis: *Real Johnson-Wilson Theories and Computations*
Advisor: Nitu Kitchloo

M.A. in mathematics, Johns Hopkins University, 2011.

B.A. in mathematics and philosophy, Lawrence University, 2010,
graduated summa cum laude

Study abroad at Moscow State University Department of Mathematics, Fall 2009

Publications

Papers

1. *The Real Johnson-Wilson Cohomology of $\mathbb{C}P^\infty$* , *Topology and its Applications* 209 (2016), 367-388.
2. *Landweber flat real pairs and $ER(n)$ -cohomology* with N. Kitchloo and W.S. Wilson, *Advances in Mathematics* 322 (2017), 60-82.
3. *The $ER(2)$ -cohomology of $B\mathbb{Z}/(2^q)$ and $\mathbb{C}P^n$* with N. Kitchloo and W.S. Wilson, *Canad. J. Math.* 70 (2018), no. 1, 191-217.
4. *Multiplicative structure on Real Johnson-Wilson theory* with N. Kitchloo and W.S. Wilson, 2017, *Contemp. Math.*, 707 (2018)
5. *The $ER(2)$ -cohomology of $\times^n \mathbb{C}P^\infty$ and $BU(q)$* with N. Kitchloo and W.S. Wilson, (2018). Submitted.

In preparation

6. *$ER(n)$ -based Mahowald invariants* with G. Li and J.D. Quigley (2018).
7. *A spectral refinement of Soergel bimodules* with A. Nakade (2018).
8. *The homotopy type of String cobordism at $p = 3$* with C. McTague and D. Ravenel (2018).

Other

9. *A User's Guide to 'Landweber Real Pairs and $ER(n)$ -cohomology'*, *Mathematics User's Guides* (2016).
<https://mathusersguides.com/>

Awards and honors

Joel Dean Teaching Award, Mathematics Department, Johns Hopkins University, 2012 and 2015

George E. Owens Fellowship, Math Department, Johns Hopkins University, 2010-2013

Andrew C. Berry–James C. Stewart Prize in Mathematics, Lawrence University, 2010

Ralph White Prize in Mathematics, Lawrence University, 2008

Phi Beta Kappa, Lawrence University, 2010

Teaching Experience

Instructor at University of Rochester

Fall 2018	<i>Differential Geometry I</i>	
Fall 2018	<i>Calculus I</i>	
Fall 2018	<i>Polynomial Method in Combinatorial Geometry</i>	(Independent Study, Honors Thesis)
Spring 2018	<i>Excursions in Mathematics</i>	
Spring 2018	<i>Calculus I</i>	
Fall 2017	<i>Calculus I</i>	
Fall 2017	<i>Linear Algebra</i>	
Fall 2017	<i>Mathematics of Navigation</i>	(Independent Study)

Instructor at Johns Hopkins University

Spring 2017	<i>Calculus II (Biological and Social Sciences)</i>	
Fall 2016	<i>Honors Single Variable Calculus</i>	
Intersession 2014	<i>History of Mathematics</i>	(also designed the course)
Summer 2014	<i>The Mathematics of Infinity</i>	
Intersession 2013	<i>The Mathematics of Infinity</i>	(also designed the course)
Fall 2013	<i>Introduction to Calculus</i>	
Summer 2013	<i>Calculus II</i>	(online)
Summer 2011	<i>Calculus II</i>	(online)

Teaching assistant at Johns Hopkins University, 2010-2016

Calculus I for Biology, Calculus II for Physical Sciences and Engineering, Calculus III, Differential Equations, Linear Algebra, Honors Calculus III, Honors Linear Algebra, Advanced Algebra II

Invited Talks

University of Western Ontario Topology Seminar, April 2018

Electronic Computational Homotopy Theory Seminar, November 2017

Cohomology Theories, Categories, and Applications Workshop, March 2017

Midwest Topology Seminar, February 2017

Johns Hopkins University Topology Seminar, February 2017

University of Rochester Topology Seminar, December 2015

University of Chicago Topology Seminar, November 2015

University of Illinois, Urbana-Champaign Topology Seminar, September 2015

Johns Hopkins University Topology Seminar, August 2015

Wayne State University Topology Seminar, August 2015

Penn State University, Altoona Topology Seminar, May 2015

University of Virginia Topology Seminar, March 2015

Joint Mathematics Meetings Special Session on Homotopy Theory, Baltimore, January 2014

Service

Co-organized University of Rochester Topology Seminar, 2017-

Co-organized REU in combinatorial geometry for University of Rochester students, summer 2018.

Mentor in Stem For All program at University of Rochester, 2018.

Contributed and coedited volume 2 of the Mathematics User's Guides Project (<https://mathusersguides.com/>)

Reviewer for zbMATH, MathSciNet

Referee for Topology and Applications, 2016-

Co-organized Johns Hopkins Graduate Student Topology Seminar, 2011-2016

Served as Head of Family and Grandparent (leadership positions) in Thread (Baltimore high school community outreach program), 2013-2017

Organized placement exam for Future Scholars Program (Baltimore high school math outreach), Johns Hopkins University, 2013-2014