

Mona Merling

BASIC INFORMATION

Johns Hopkins University
Department of Mathematics
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Citizenship: Romania
Date of birth: 5 January 1986

RESEARCH INTERESTS

Algebraic topology. In particular, algebraic K-theory and equivariant stable homotopy theory.

ACADEMIC APPOINTMENTS

Johns Hopkins University, Baltimore, MD
J.J. Sylvester Assistant Professor, July 2014 - present

EDUCATION

University of Chicago, Chicago, IL
Ph.D. in Mathematics, June 2014
Advisor: Peter May
Thesis: *Equivariant algebraic K-theory*
M.S. in Mathematics, June 2010

Bard College, Annandale, NY
B.A. in Mathematics, May 2009
Senior thesis: *A structure theorem for Plesken Lie algebras over finite fields*

PUBLICATIONS & PREPRINTS

Comparison of equivariant infinite loop space machines, (with J.P. May and A. Osorno), in preparation.

Unbased calculus for functors to chain complexes, (with M. Basterra, K. Bauer, A. Beaudry, R. Eldred, B. Johnson and S. Yeakel), to appear in AMS Contemporary Mathematics Series, Proceedings of the 2013 Women in Topology Workshop, arXiv:1409.1553v2.

Categorical models for equivariant classifying spaces, (with B. Guillou and J.P. May), to appear in Algebraic and Geometric Topology, arXiv:1201.5178.

Function fields with class number indivisible by a prime l , (with M. Daub, J. Lang, A. Pacelli, N. Pitiwan, M. Rosen), Acta Arithmetica, 150 (2011), 339-359, arXiv:0906.3728.

Gassmann equivalent dessins, (with R. Perlis), Communications in Algebra, Vol. 38, Issue 6 (2010), 2129-2137.

HONORS AND AWARDS

Lawrence and Josephine Graves Prize, University of Chicago 2013
Excellence in undergraduate teaching

Distinguished Scientist Scholarship, Bard College 2004-9
Full tuition scholarship

Trustee Leader Scholarship, Bard College 2005-9
Leadership and community service program

William J. Lockwood Prize, Bard College 2009
Student who has contributed most to the intellectual life of the College and to the general welfare of the College

M. Susan Richman Senior Project Award in Mathematics, Bard College <i>Senior student exhibiting the most mathematical creativity</i>	2009
Sara Gelbart Prize in Mathematics, Bard College <i>Student who shows the most promise and produces outstanding work in mathematics</i>	2008
Harry J. Carman Scholarship, Bard College <i>General academic excellence</i>	2008
C.V. Starr Scholarship, Bard College <i>Student from abroad who demonstrates both need and academic excellence</i>	2007-9
Alumni/ae Scholarship, Bard College <i>Excellence in scholarship and citizenship</i>	2007
Kenneth Bush Scholarship in Mathematics, Bard College <i>Excellence in mathematics</i>	2007

TEACHING
EXPERIENCE

Johns Hopkins University, Instructor

Spring	2015	math 107	Calculus II for biology
Fall	2014	math 328	Non-Euclidean geometry IBL

University of Chicago, Instructor

Winter	2014	math 176	Geometry IBL (co-taught with John Boller)
Spring	2013	math 112	Studies in mathematics
Winter	2013	math 153	Calculus III
Fall	2012	math 152	Calculus II
Spring	2012	math 112	Studies in mathematics
Winter	2012	math 106	Precalculus II
Fall	2011	math 105	Precalculus I

University of Chicago, College Fellow

Spring	2011	math 256	Basic Algebra III (mentor: Liang Xiao)
Winter	2011	math 255	Basic Algebra II (mentor: Rina Anno)
Fall	2010	math 254	Basic Algebra I (mentor: David Constantine)

Bard College, mathematics tutor

INVITED TALKS

Research Talks

AMW workshop at AMS joint meetings, January 2015

MIT Topology Seminar, December 2014

Young Topologists Meeting, Copenhagen, June 2014

MSRI Connections for Women Workshop, MSRI, Berkeley, January 2014

AMS joint meetings, special session on homotopy theory, Baltimore, January 2014

Northwestern Topology Seminar, December 2014

AMS special session on homotopy theory and algebraic K-theory, Riverside, November

2013

Graduate Student Topology Conference, Notre Dame, April 2013

UIUC Topology Seminar, February 2013

AMS joint meetings, Washington DC, January 2009

AMS joint meetings, San Diego, January 2008

AMS joint meetings, New Orleans, January 2007

Expository Talks

MSRI Algebraic Topology Summer School, MSRI, Berkeley, *Model categories of diagram spectra*, June 2013

West Coast Algebraic Topology Summer School, Stanford, Palo Alto, *The construction of the Waldhausen algebraic K-theory spectrum*, July 2012

West Coast Algebraic Topology Summer School, University of Washington, Seattle, *Algebraic K-theory*, August 2011

Various expository talks in the University of Chicago Topology Proseminar

SELECTED SERVICE Co-organizer, Johns Hopkins Algebraic Topology Seminar, Johns Hopkins, 2014-present

Committee member and mentor for the Directed Reading Program, University of Chicago, 2012-present

Co-organizer, Algebraic K-theory Student Seminar, University of Chicago, spring 2013

Member of the steering committee for the Mid-Hudson mathematics conference for undergraduates, Bard College, 2008

Member of the hiring committee for tenure track position in mathematics, Bard College, 2008

Member of the hiring committee for tenure track position in mathematics, Bard College, 2007

LANGUAGES English, Spanish, German (Abitur 2005), French (proficient in reading), and Romanian (native language).