

Department of Mathematics
The University of British Columbia
Room 121, 1984 Mathematics Road
Vancouver, B.C.
Canada V6T 1Z2
Phone: 604.822.3742
Email: mblunk@math.ubc.ca

Mark Blunk Curriculum Vitae

PERSONAL INFORMATION

Birth date: June 20th, 1980.
Citizenship: United States of America

EMPLOYMENT

UBC, Vancouver, Canada
NSF Postdoctoral Fellow, 2009-2012

EDUCATION

UCLA, Los Angeles, California
Ph. D. Mathematics, June 2009
Thesis title: *Del Pezzo surfaces of degree 6 over an arbitrary field*
Advisor: Alexander Merkurjev.
MA Mathematics, June 2004.
University of Washington, Seattle, Washington
B.S. Mathematics with College Honors, June 2003.

TEACHING EXPERIENCE

- **2009-2012 UBC:**
 - Winter 2011:** Math 105, Integral Calculus for Commerce and Social Sciences.
 - Fall 2010:** Math 200, Multivariable Calculus.
 - Fall 2009:** Math 200, Multivariable Calculus.
- **2004-2009** Teaching Assistant, Department of Mathematics, UCLA.
 - Lower Division Courses:**
Single Variable Calculus for Life Science Majors, Multivariable Calculus, Differential Equations, and Discrete Structures.
 - Upper Division Courses and Graduate Courses:**
Linear Algebra, Honors Algebra, and Graduate Algebra.
- **Spring 2007** Instructor for Single Variable Calculus for Life Sciences.
- **Summers 2006 and 2008:** Teaching Assistant for the University of Washington Mathematics Department NSF Research Experience for Undergraduates.

PAPERS

- *A Derived Equivalence for some Projective Homogeneous Varieties.* In preparation.
- *Stably Cayley Groups over Arbitrary Fields,* (with M. Borovoi, B Kunyavskii, N. Lemire, and Z. Reichstein. In preparation.
- *A Derived Equivalence for Del Pezzo surfaces of degree 6 over an arbitrary field.* with S.J. Sierra and S.P. Smith. *Journal of K-Theory* 8 (2011), no. 03, 481-492.

- *Del Pezzo surfaces of degree 6 over an arbitrary field.* J. Algebra 323 (2010), no. 1, 42-58.
- *Del Pezzo surfaces of degree 6 over an arbitrary field.* Thesis, University of California Los Angeles, 2009.

RESEARCH INTERESTS Linear Algebraic Groups, Algebraic Tori, K-theory, Projective Homogeneous Varieties, Galois Cohomology.

RESEARCH TALKS (* indicates invited talk) On *A Derived Equivalence for some Projective Homogeneous Varieties:*
 ***March 2012:** Algebra Seminar, University of Alberta, Edmonton.
 ***November 2011:** Algebra and Algebraic Geometry Seminar, University of Washington, Seattle.
October 2011: Algebraic Groups Seminar, University of British Columbia, Vancouver.
 ***May 2011:** Algebraic Geometry Seminar, University of Georgia, Athens. CANCELLED
May 2011: “Ramification in Algebra and Geometry at Emory”, Emory University, Atlanta. CANCELLED

On *Del Pezzo surfaces of degree 6 over an arbitrary field:*

October 2009: Algebraic Groups Seminar, University of British Columbia, Vancouver.
September 2009: “Linear Algebraic Groups and Related Structures,” BIRS, Banff.
 ***December 2008:** Algebraic Geometry Seminar, University of Georgia, Athens.
 ***September 2008:** Algebraic Geometry Seminar, Oxford University, Oxford.
August 2008: “Quadratic Forms, Algebraic Groups, Algebraic Cobordism, and Related Topics.” University of Nottingham, U.K..
August 2008: Algebra and Algebraic Geometry Seminar. University of Washington, Seattle.
May 2008: Algebra Seminar, UCLA, Los Angeles.

EXPOSITORY TALKS **January 2011:** “Severi-Brauer Varieties,” UBC Algebraic Groups Seminar. Two talks.
April 2008: “The Stable Homotopy Category,” UCLA Algebra Participatory Seminar. Three talks.
November 2006: “Algebraic Stacks,” UCLA Algebra Participatory Seminar. Three talks.
February 2006 – April 2006: “Norm Varieties,” UCLA Algebra Participatory Seminar. Ten talks.

ADDITIONAL CONFERENCES ATTENDED **August 2012:** Brauer 2012. CSU Pingree Park, Colorado.
March 2011: “Suslin 60th Birthday Conference.” UCLA, Los Angeles.
January 2011: “Patching, Deformation, and the Brauer Group.” American Institute of Mathematics, Palo Alto.
March 2010: Fields Workshop on “Torsors, Lie Algebra, and Galois Cohomology.” University of Ottawa.
November 2009: \mathbb{A}^1 -homotopy and Rational Curves. American Institute of Mathematics, Palo Alto.
May 2009: “Quadratic Forms and Linear Algebraic Groups.” MFO, Oberwolfach.

July – August 2007: PIMS Algebra Summer School. University of Alberta, Edmonton.
May 2007: “Linear Algebraic Groups and Cohomology.” Emory University, Atlanta.
September 2006: “Algebraic groups, quadratic forms and related structures.” BIRS, Banff.

AWARDS AND
PROFESSIONAL
EXPERIENCE

- **2009-2012:** NSF MSPRF Postdoctoral Fellowship
- **Fall 2011:** Co-organizer of UBC Algebraic Geometry Seminar.
- **Fall 2009:** Attended Instructional Skills Workshop in Teaching, UBC.
- **2009:** Chateaubriand Fellowship to Institut de Mathématiques de Jussieu. **Declined**
- **2003 - 2004, 2006-2007:** NSF VIGRE Graduate Student Fellowship.
- **Winter 2003:** Received Outstanding status and the INFORMS prize in 2003 COMAP Mathematical Modeling Competition, with S. Coskey and L. Winstrom. Published in UMAP Journal (2003), Vol 24.3.
- **Spring 2001:** Gullicksen Scholarship. Awarded to the outstanding Junior in the University of Washington Department of Mathematics.