

Christian Krogager Zickert

- CONTACT INFORMATION** Department of Mathematics +1 510-642-5546 (office)
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Berkeley, CA, 94720-3840, USA
- PERSONAL INFORMATION** Born October 30, 1980, in Struer, Denmark
- RESEARCH INTERESTS** My primary research interest is in low dimensional topology and its interactions with arithmetic and mathematical physics. I am particularly interested in hyperbolic geometry, Chern-Simons theory, and the volume conjecture.
- EMPLOYMENT**
- University of Maryland, College Park**
Accepted tenure track position
- University of California, Berkeley**
Morrey Assistant Professor, July 2008 - June 2011
- Max Planck Institute for Mathematics, Bonn, Germany**
Visiting position, Feb 1 - May 31, 2009
- EDUCATION**
- Columbia University, New York**
Ph.D. in Mathematics (with distinction), May 2008
- Dissertation title: *Hyperbolic 3-manifolds and the Cheeger-Chern-Simons class*
 - Advisor: Walter D. Neumann
- Aarhus University, Denmark**
- M.S. in Mathematics, June 2005
- Thesis title: *A dilogarithmic formula for the Cheeger-Chern-Simons class*
 - Advisor: Johan L. Dupont
- B.S. in Mathematics, June 2002
- Thesis title: *The fundamental group and de Rham cohomology*
 - Advisor: Johan L. Dupont
- AWARDS AND GRANTS**
- NSF grant (PI)**, *The volume and Chern-Simons invariant in topology and number theory*, DMS-1007054, 2010-2013
- Rejselegat for Matematikere** (Traveling Scholarship for Mathematicians), full scholarship covering tuition, fees and living expenses, 2005-2008

PUBLICATIONS
AND PREPRINTS

C. Zickert, *The extended Bloch group and algebraic K-theory*, submitted, math.KT/0910.4005

C. Zickert, *The volume and Chern-Simons invariant of a representation*, Duke Math. J. 150 no. 3 (2009) 489–532, math.GT/0710.2049

S. Goette, C. Zickert, *The extended Bloch group and the Cheeger-Chern-Simons class*, Geom. Topol. 11 (2007) 1623–1635, math.GT/0705.0500

J. Dupont, C. Zickert, *A dilogarithmic formula for the Cheeger-Chern-Simons class*, Geom. Topol. 10 (2006) 1347–1372, math.GT/0903.0284

INVITED
TALKS

Master classes

The extended Bloch group and representations of 3-manifold groups, Seoul National University, South Korea, October 7-9, 2010, three lectures each of two hours length

Hyperbolic manifolds and $\mathrm{PSL}(2, \mathbb{C})$ -representations, Seoul National University, South Korea, July 21-25, 2008, five lectures each of two hours length

INVITED
TALKS

Colloquia

The volume and Chern-Simons invariant of a hyperbolic manifold, Boston College, MA, March 27, 2008

INVITED
TALKS

Workshops

Low dimensional topology and number theory, Oberwolfach, Germany, August 15-21, 2010

Quantum dilogarithm and quantum Teichmüller theory, Aarhus University, Denmark, August 9-13, 2010

Volume conjecture, invariants and geometry of knots, Waseda University, Tokyo, Japan, January 14-16, 2010, three lectures

Low dimensional topology and number theory, BIRS, Banff, Canada, October 21-26, 2007

INVITED
TALKS

Conferences

Faces of geometry: 3-manifolds, groups and singularities, conference in honor of Walter Neumann, Columbia University, New York NY, June 6-10, 2011

Ahlfors-Bers colloquium, Rice University, Houston, TX, March 24-27, 2011

Quantum geometry and topology, CIRM, Luminy, France, July 5-9, 2010

Special session on invariants of knots, links, and 3-manifolds, AMS sectional meeting, New Jersey Institute of Technology, Newark, NJ, May 22-23, 2010

Interactions between hyperbolic geometry, quantum topology and number theory, Columbia University, New York, NY, June 3-19, 2009

A second time around the volume conjecture, Louisiana State University, Baton Rouge, LA, May 30 - June 3, 2007

Around the volume conjecture, Columbia University, New York, NY, March 13-19, 2006

Mahler measure in Mobile, University of South Alabama, Mobile, AL, January 5-8, 2006

INVITED
TALKS

Educational

Scissors congruences, spring school for graduate students at the universities of Bonn, Bochum and Düsseldorf, Technische Universität Dortmund, Germany, May 1-4, 2009

INVITED
TALKS

Department seminars

University of California, Berkeley, CA, February 02, 2011

University of Maryland, College Park, MD, January 31, 2011

Boston College, MA, January 20, 2011

University of Texas, Austin, TX, December 7, 2010

University of California, Davis, CA, October 13, 2010

Waseda University, Tokyo, Japan, October 5, 2010

Stanford University, Palo Alto, CA, September 28, 2010

Copenhagen University, Denmark, July 20, 2010

Stanford University, Palo Alto, CA, October 6, 2009

Georgia Institute of Technology, Atlanta, GA, September 14, 2009

Aarhus University, Denmark, May 27, 2009

Max Planck Institute for Mathematics, Bonn, Germany, May 25, 2009

Copenhagen University, Denmark, May 11, 2009

University of California, Berkeley, CA, October 1, 2008 (two talks)

Aarhus University, Denmark, May 13, 2008

Rutgers University, New Brunswick, NJ, March 11, 2008

Columbia University, New York, NY, February 22, 2008

Copenhagen University, Denmark, January 14, 2008

Georgia Institute of Technology, Atlanta, GA, February 19, 2007

Georgia Institute of Technology, Atlanta, GA, October 31, 2005

Columbia University, New York, NY, September 16, 2005

Aarhus University, Denmark, February 22, 2005

REFEREEING

Appointed referee for the following journals:

- Algebraic and Geometric Topology
- Annales de l'Institut de Fourier
- Geometriae Dedicata
- Geometry and Topology
- Journal of Computational and Applied Mathematics
- Journal of K-Theory
- Mathematische Zeitschrift
- Pacific Journal of Mathematics

TEACHING EXPERIENCE

University of California, Berkeley

Spring 2011

- Elementary differential topology
- Second course in abstract algebra

Fall 2010

- Algebraic topology (graduate course)

Spring 2010

- Introduction to abstract algebra
- Introduction to complex analysis

Fall 2009

- Algebraic topology (graduate course)

Fall 2008

- Linear algebra
- Algebraic topology (graduate course)

Columbia University, New York

2005 - 2008

- Financially supported by the grant “Rejselegat for Matematikere” (Traveling Scholarship for Mathematicians) and exempt from teaching

Aarhus University, Denmark

2001 - 2005

- Teaching assistant for undergraduate courses in calculus, Fourier analysis, linear algebra, complex function theory, and geometry