

## JESSE PETERSON

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### Education

*PhD* in Mathematics at UCLA, June 2006.

Advisor: Prof. Sorin Popa.

Dissertation title: 1-cohomology and rigidity in  $\text{II}_1$  factors.

*Bachelor of Science* from Westmont College (USA), May 2001.

### Academic Employment

**Assistant Professor** - Vanderbilt University

2008 to current.

**NSF Postdoctoral Fellow** - UC Berkeley

2006 to 2008.

Scientific mentor: Vaughan Jones.

**Instructor** - UCLA.

Spring 2004.

**Teaching Assistant** - UCLA.

Fall 2002 to Summer 2004.

### Honors and Awards

**NSF Grant DMS-0901510**, Vanderbilt University, 2009-2012.

**Alfred P. Sloan Research Fellowship**, Vanderbilt University, 2009-2011.

**NSF Math. Sci. Postdoctoral Research Fellowship**, UC Berkeley, 2006-2008.

**Clay Mathematics Institute Liftoff Fellowship**, UC Berkeley, Summer 2006.

**UCLA Dissertation Year Fellowship**, UCLA, 2005-2006.

**NSF-VIGRE Fellowship**, UCLA, 2001-2002, 2004-2005.

**Regent's Registration Fee Grant**, UCLA, 2002-2004.

### Invited Talks

Conference and workshop lectures:

- August 17-19, 2009 - Summer School on Ergodic Theory of Group Actions (lecture series), Mathematisches Institut, Georg-August-Universität, Göttingen.
- August 3-5, 2009 - Concentration Week on Operator Spaces and Approximation Properties of Discrete Groups (lecture series), Texas A&M University.
- June 29, 2009 - Affine Isometric Actions of Discrete Groups, ETH Zürich.
- March 15, 2009 - Von Neumann Algebras and Ergodic Theory, UCLA.
- October 28th, 2008 - Von Neumann Algebras and Ergodic Theory of Group Actions, Mathematisches Forschungsinstitut Oberwolfach, Germany.

- September 6, 2008 - Wabash Modern Analysis Miniconference, IUPUI.
- August 5, 2008 - Operator Algebras, Dynamics, and Classification, Texas A&M University.
- June 20, 2008 - Great Plains Operator Theory Symposium (plenary speaker), University of Cincinnati.
- April 20, 2008 - Shanks Workshop on Subfactors and Planar Algebras, Vanderbilt University.
- March 25, 2008 - Topics in von Neumann Algebras, Banff International Research Station.
- February 2, 2008 - West Coast Operator Algebra Seminar, Cal State Long Beach.
- October 29, 2007 - Workshop on von Neumann Algebras, Fields Institute, Canada.
- March 30, 2007 - Free Probability and Large N Limit, UC Berkeley.
- March 17, 2007 - Workshop on von Neumann Algebras and Ergodic Theory, UCLA.
- September 30, 2006 - East Coast Operator Algebras Symposium, Georgia Institute of Technology.
- September 17, 2006 - Topics on von Neumann Algebras, Banff International Research Station.
- June 20, 2006 - Free Analysis Workshop, American Institute of Mathematics.
- May 29, 2006 - Beyond Amenability: Groups, Actions and Operator Algebras, UCLA.
- April 20, 2006 - Operator Algebras and Applications, University of Southern Denmark.
- June 10, 2005 - Workshop on Operator Algebras, Operator Spaces and Noncommutative Probability, Université de Franche-Comté, Besançon, France.
- May 18, 2005 - The Third Annual Spring Institute on NCGOA, Vanderbilt University.
- October 16, 2004 - Special Session on von Neumann Algebras and Noncommutative Ergodic Theory, AMS Conference, Vanderbilt University.
- August 3, 2004 - Concentration Week in Free Probability and Noncommutative  $L^p$  Spaces, Texas A&M University.
- May 27, 2004 - Great Plains Operator Theory Symposium, Texas A&M University.

Seminar and colloquium lectures:

- April 22, 2009 - Topology & Group Theory Seminar, Vanderbilt University.
- February 6, 2009 - Subfactor Seminar, Vanderbilt University.
- November 13, 2008 - Colloquium Talk, University of New Hampshire.
- October 10, 2008 - Subfactor Seminar, Vanderbilt University.
- September 30, 2008 - Noncommutative Geometry Seminar, Vanderbilt University.
- May 2, 2008 - Subfactor Seminar, UC Berkeley.
- May 1, 2008 - Student Subfactor Seminar, UC Berkeley.
- April 21, 2008 - Subfactor Seminar, Vanderbilt University.
- April 14, 2008 - Probabilistic Operator Algebra Seminar, UC Berkeley.
- December 5, 2007 - Functional Analysis Seminar, UCLA.
- November 30, 2007 - Colloquium Talk, Westmont College.
- November 5, 2007 - Probabilistic Operator Algebra Seminar, UC Berkeley.
- February 22, 2007 - Analysis Seminar, University of Illinois at Urbana-Champaign.
- January 18, 2007 - Colloquium Talk, Vanderbilt University.
- December 4, 2006 - Probabilistic Operator Algebra Seminar, UC Berkeley.
- November 13, 2006 - Probabilistic Operator Algebra Seminar, UC Berkeley.
- October 9, 2006 - Subfactor Seminar, Vanderbilt University.
- September 15, 2006 - Subfactor Seminar, UC Berkeley.
- September 8, 2006 - Subfactor Seminar, UC Berkeley.
- April 12, 2006 - Functional Analysis Seminar, UCLA.
- February 7, 2006 - Colloquium Talk, Purdue University.
- February 4, 2006 - Wabash Modern Analysis Seminar, Wabash College.
- January 17, 2005 - Functional Analysis Seminar, UCLA.

- December 16, 2004 - Séminaire Algèbres d'Opérateurs, Institut de Mathématiques de Jussieu, France.
- November 30, 2004 - Operator Algebras Seminar, University of Southern Denmark.
- September 16, 2004 - Séminaire Algèbres d'Opérateurs, Institut de Mathématiques de Jussieu, France.
- September 6, 2004 - Séminaires de Géométrie non Commutative et Physique Théorique, Institut de Mathématiques de Luminy, France.
- April 7, 2004 - Functional Analysis Seminar, UCLA.
- March 3, 2004 - Functional Analysis Seminar, UCLA.

### Publications and Preprints

- J. Peterson, T. Sinclair: *On cocycle superrigidity for Gaussian actions*, math.OA/ 0910.3958, preprint 2009.
- J. Peterson, A. Thom: *Group cocycles and the ring of affiliated operators*, math.OA/ 0708.4327, preprint 2007.
- J. Peterson:  *$L^2$ -rigidity in von Neumann algebras*, Invent. math. **175**, 417-433 (2009)
- J. Peterson: *A 1-cohomology characterization of property (T) in von Neumann algebras*, Pacific Journal of Math. **243**, No. 1, 181-199 (2009)
- A. Ioana, J. Peterson, S. Popa: *Amalgamated Free Products of  $w$ -Rigid Factors and Calculation of their Symmetry Groups*, Acta Math. **200**, No. 1, 85-153 (2008)
- J. Peterson, S. Popa: *On the notion of relative property (T) for inclusions of von Neumann algebras*, J. Funct. Anal. **219**, no. 2, 469-483 (2005)