

JESSE PETERSON

Vanderbilt University Mathematics Department
1326 Stevenson Center, Nashville, TN 37240
(615) 343-5905
www.math.vanderbilt.edu/~peters10
jesse.d.peterson@vanderbilt.edu

Education

PhD in Mathematics at UCLA, June 2006.

Advisor: Prof. Sorin Popa.

Dissertation title: 1-cohomology and rigidity in 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.

Students

- Thomas Sinclair, 2011.

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 Lifford 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:

- January 9, 2011 - AMS Special Session on Noncommutative Harmonic Analysis and Dynamic Systems, Joint Mathematics Meetings in New Orleans, LA.
- October 9, 2010 - Special Session on Rigidity in von Neumann Algebras and Ergodic Theory, AMS Sectional Meeting, UCLA.
- June 14-17, 2010 - Workshop AGORA, Actions, Groups, and Operator Algebras (lecture series), Ecole Normale Supérieure, Lyon, France.

- May 18, 2010 - NCGOA Spring Institute (on von Neumann algebras), Vanderbilt University.
- March 9, 2010 - C^* -Algebren, Mathematisches Forschungsinstitut Oberwolfach, Germany.
- February 2-5, 2010 - Von Neumann Algebras and Group Actions (2 talks), University of Copenhagen.
- December 17, 2009 - Joint Meeting of the KMS and AMS, Special Session on Operator Theory and Operator Algebras, Ewha Womans' University.
- December 10, 2009 - Operators and Operator Algebras, Conference in Honor of Alastair Gillespie and Allan Sinclair, University of Edinburgh.
- November 7, 2009 - Special Session on Operator Algebras, AMS Sectional Meeting, UC Riverside.
- 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.
- 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:

- May 31, 2010 - Functional Analysis Seminar, UCLA.
- 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.

Conferences Co-organized

- May 10-19, 2010 - NCGOA Spring Institute (on von Neumann algebras), Vanderbilt University.
- August 3-7, 2009 - Concentration Week on Operator Spaces and Approximation Properties of Discrete Groups, Workshop in Analysis and Probability, Texas A&M University

Publications and Preprints

- I. Chifan, J. Peterson: *Some unique group-measure space decomposition results*, arXiv.org:1010.5194, preprint 2010.
- J. Peterson: *Examples of group actions which are virtually W^* -superrigid*, arXiv.org:1002.1745, preprint 2009.
- J. Peterson, T. Sinclair: *On cocycle superrigidity for Gaussian actions*, arXiv.org:0910.3958, preprint 2009. To appear in Erg. Th. & Dyn. Sys.
- J. Peterson, A. Thom: *Group cocycles and the ring of affiliated operators*, arXiv.org:0708.4327, preprint 2007. To appear in Invent. Math.
- 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)