

KATE JUSCHENKO - CURRICULUM VITAE

EDUCATION

PhD - Texas A&M University, College Station - Scientific advisor: Gilles Pisier - 2011
MS - Kiev National University of Ukraine, *summa cum laude* - 2006

APPOINTMENTS

Assistant Professor - Northwestern University – 2013
Chargé de Recherches (research position) at CNRS – concours 2013, position held till 2014
Assistant Professor, Vanderbilt University – 2012 to 2013
Postdoc, EPFL, Switzerland – 2011 to 2012.

HONORS AND AWARDS

Kamil Duszenko prize (2016)
Plenary talk at XXI Coloquio Latinoamericano de Algebra, Buenos Aires, Argentina (2016)
AMS Centennial Fellow (2014)
CAREER National Science Foundation Award DMS1352173 (2014–2019)
N. Bourbaki seminar on my work (Jan 2013)

GRANTS

National Science Foundation, DMS-1522981, grant for conference organization. PI (2015-2017)
National Science Foundation, DMS1300174, grant, PI, Northwestern Univ (2013–2016)
AWM Travel Grant (Oct 2012)

FELLOWSHIPS

MSRI research member (fall 2016)
Research Fellowship, Mittag-Leffler Institute, Sweden (Spring 2012, Spring 2016)
Wayne State Univ visiting scholar (2014)
Junior Oberwolfach Fellow (2011, 2012, 2013)
Fellow of the Swedish Research Council (2009-2011)

COLLOQUIA

California Institute of Technology (Nov 2016)
Brandeis-Harvard-MIT-Northeastern joint colloquium (October 2016)
Penn State University (Jan 2016)
Ohio State University (Jan 2016)
University of Waterloo (Dec 2015)
Technion, Haifa (May 2015)
University of Fribourg, Switzerland (March 2015)
Penn State University (Feb 2015)
University of Wollongong, Australia (July 2014)
2 colloquia, Wayne State University, Detroit, USA (Feb 2015)
University of Iowa, USA (Oct 2013)
Georgia Tech, Atlanta (Feb 2013)
Cornell University, Ithaca, NY (Feb 2013)
University of Hawaii, Manoa (Feb 2013)
University of Oregon, Eugene (Feb 2013)
University of Illinois at Urbana-Champaign, IL (Jan 2013)
UC Berkeley, CA (Jan 2013)
Rice University (Jan 2013)
Northwestern, Chicago IL (Jan 2013)
University of Virginia (Jan 2013)

Indiana University, Bloomington (Nov 2012)
SUNY at Buffalo, New York (Nov 2012)

CONFERENCE TALKS

East Coast Operator Algebra Symposium at Loyola University Chicago (Oct 2016)
Geometric group theory at MSRI, Berkeley (Sept-Dec 2016)
Plenary talk at XXIV Brazilian Algebra Meeting, Diamantina, Brazil (July 2016)
Plenary talk at XXI Coloquio Latinoamericano de Algebra, Buenos Aires, Argentina (July 2016)
Measured Group Theory, Oberwolfach, Germany
GAGTA, Stevens Institute of Technology, Hoboken (June 2016)
2 talks at Mittag Leffler Institute, Sweden (March 2016)
Noncommutative dimension theories: connections and applications, Honolulu, USA (Dec 2015)
2 Sections at AMS Sectional Meeting at Loyola University in Chicago (Oct 2015)
Geometric and Probabilistic Methods in Group Theory, Texas A&M Univ (Nov 2015)
GAGTA, Luminy, France (Sept 2015)
Noncommutative Geometry, Oberwolfach (June 2015)
13th Annual Spring Institute on Noncom. Geom. and Oper. Algebras, Vanderbilt, USA (May 2015)
International conference dedicated to 100th anniversary of Kaluzhnin, Kiev, Ukraine (July 2014)
von Neumann algebras and ergodic theory, UCLA, USA (Sept 2014)
AMS special session at Eau Claire, Wisconsin (Sept 2014)
Dynamics and C^* -Algebras: Amenability and Soficity, BIRS, Canada (Oct 2014)
48th Annual Spring Topology and Dynamics Conference Richmond, Virginia (March 2014)
30th Southeastern Analysis Meeting, Clemson University (March 2014)
GAGTA, Newcastle, Australia (July 2014)
Dynamics and Numbers, Bonn, Germany (July 2014)
Topological methods in group theory, in honor of Ross Geoghegan, Univ. Ohio, USA (June 2014)
Groups, Groupoids and Dynamics, Texas A&M University, TX, USA (June 2014)
Great Plains Operator Algebras Symposium, Kansas State University (May 2014)
AMS Meeting, University of New Mexico, Albuquerque, NM, USA (April 2014)
Classification Problems in Operator Algebras at the Joint AMS in Baltimore (Jan 2014)
Introductory school, Luminy, CIRM, France (Jan 2014)
West Coast Operator Algebra Seminar, UC Davis, CA (Oct 2013)
Arbeitsgemeinschaft: Sofic Entropy, Oberwolfach (Oct 2013)
Wasatch Topology Conference, University of Utah, Salt Lake City (Nov 2013)
 C^* -algebras, Oberwolfach workshop, Germany (Aug 2013)
Workshop Group Theory, Measure and Asymptotic Invariants, Oberwolfach, Germany (Aug 2013)
Concentration week "Dynamics, Geometry, and Operator Algebras", Texas A&M, USA (Aug 2013)
SUMIRFAS, Texas A&M, USA (Aug 2013)
Geometric group theory conference, Kyoto, Japan (July 2013)
Geometric group theory seminar, IMPAN, Warsaw, Poland (June 2013)
Workshop on operator spaces, Harmonic Analysis, Quantum probability, Madrid, Spain (June 2013)
Cube complexes and 3-manifolds, University of Illinois at Chicago, USA (May 2013)
Group Theory Seminar at the CUNY, (April 2013)
Shanks 2013: Von Neumann algebras and Ergodic theory Conference, Vanderbilt, Nashville, TN
Word maps and stability of representations, Vienna, Austria (April 2013)
Geometric groups on the gulf coast, South Padre Island (April 2013)
Descriptive set theory seminar, Rutgers, Newark, NY (April 2013)
Kervaire Seminar "Geometry of groups 2013", Diablerets, Switzerland (March 2013)
Amenability conference, EPFL, Lausanne, Switzerland (Dec 2013)
Wabash analysis seminar, Indiana University, UIUC, Purdue University and IUPUI, USA (Dec 2012)
Facette de groupes, Grenoble, France (Dec 2012)
Tenth East Coast Operator Algebras Symposium, Univ. of Tennessee, Knoxville, TN (Sept 2012)
III Atlantic Geometry Seminar, Castro Urdiales, Spain (Sept 2012)
Coarse geometry of infinite groups, Lille, France (June 2012)
Besancon-Neuchatel functional analysis meeting, Neuchatel, Switzerland (June 2012)
Groups and analysis, Institute of mathematics, Neuchatel, Switzerland (May 2012)

Workshop on Connes' Embedding Conjecture, Neuchatel, Switzerland (Apr 2012)
West coast operator algebra seminar, Albuquerque, NM (Oct 2011)
Fall AMS Central Section Meeting, Lincoln, NE (Oct 2011)

LECTURE SERIES AND MINI-COURSES

3 lectures at Differential geometry and geometric Analysis at RIMS, Kyoto (June 2016)
2 lectures at Wayne State University, Detroit, USA (Feb 2015)
5 lectures at Bernoulli center (Aug 2015)
5 lectures at School on Orbit Equivalencies and Related fields, Chile (Dec 2014)
2 lectures at UCLouvain - KULeuven seminar, Leuven, Belgium (Feb 2012)

SEMINAR TALKS

Operator algebras/Operator theory seminar, Ben-Gurion University (May 2015)
Seminar at EPFL, Switzerland (March 2015)
Seminar, Groupe de travail "Dynamique mesurable", ENS Lyon, France (May 2014)
Geometry Seminar, University Lyon 1, France (May 2014)
Operator Algebra seminar, Besancon, France (Jan 2014)
Operator Algebras seminar, Copenhagen University, Denmark (Jan 2014)
Seminar at University of Illinois Chicago, IL (Sept 2013)
Stevens Institute, Hoboken (April 2013)
Topology seminar, Binghamton, NY (Feb 2013)
Topology and Geometry seminar jointly with Dynamics seminar, Univ of Chicago, IL (Jan 2013)
Algebra Seminar, Northwestern University, Chicago (Jan 2013)
Geometry-topology seminar, SUNY Binghamton, NY (Nov 2012)
Operator algebras seminar, University of Virginia, Charlottesville, VA (Nov 2012)
Algebra seminar, University of Virginia, Charlottesville, VA (Nov 2012)
Groups and dynamics joint with Banach spaces seminar, Texas A&M University (Nov 2012)
Algebra Seminar, University of Virginia, USA (Nov 2012)
Operator algebras seminar, University of Virginia, USA (Nov 2012)
Oliver Club at Cornell University, Ithaca, NY (Oct 2012)
Subfactor seminar, Vanderbilt University, Nashville, NT (Oct 2012)
Topology and group theory seminar, Vanderbilt University, Nashville, NT (Oct 2012)
Topology and group theory seminar, Vanderbilt University, Nashville, NT (Sept 2012)
Seminar at Institute of Mathematics of the Polish Academy of Sciences, Warsaw, Poland (June 2012)
LaWiNe Seminar, Lausanne, Switzerland (Feb 2012)
Geometric group theory seminar, Mittag-Leffler Institute, Djursholm, Sweden (Feb 2012)
Group theory seminar, University of Geneva, Switzerland (Dec 2011)
LaWiNe Seminar, Lausanne, Switzerland (Dec 2011)
Functional analysis seminar, University of Besancon, France (Nov 2011)
LaWiNe Seminar, Lausanne, Switzerland (May 2011)
Subfactor Seminar, Vanderbilt University, Nashville, TN (Feb 2011)

PROFESSIONAL SERVICE

- Member of the Scientific Board of American Institute of Mathematics, with five years appointment (2016–)
- Member of the Scientific Committee of the conference dedicated to anniversary of Mark Sapir (2016)
- Member of the Scientific Committee of the annual conference "*Young Geometric Group Theory*" (2013)
- Served on several panels at the National Science Foundation in 2013, 2014.
- *Proposal reviews*: NSF, NSA-AMS.
- *Committee work at Northwestern*: Graduate students committee (2015, 2016), Coaching of the Northwestern's Team for the Putnam competition (2014, 2015, 2016), Colloquium Committee (2013).
- *PhD Thesis defense committees*: Mike Cantrell (2016, University of Illinois at Chicago).
- *Refereed for the journals*: Annals of Mathematics, Geometric and Functional Analysis, American Journal of Mathematics, Journal of Functional Analysis, Transactions of AMS, Israel Journal of Mathematics, Advances of Mathematics, Journal of Algebra, Linear Algebra and Applications, Groups Geometry and Dynamics, Electronic Research Announcements, Journal of London Mathematical Society, Proceedings of the London Mathematical Society, Proceedings of American Mathematical Society, Journal of Pure and Applied Algebra, Math. Reviews

CONFERENCE ORGANIZATION

- Manifolds and groups, Ventotene, Italy. Co-organizer with Stefano Francaviglia, Roberto Frigerio, Alessandra Iozzi, Gabriele Mondello, Michah Sageev (August 2017)
- Spring school in measured and geometric group theory, Northwestern (April 2017)
- Workshop: Groups of dynamical origin, Instituto de Matematicas, UNAM, Mexico City (Feb 2017)
- Amenability, workshop at American Institute of Mathematics (Sept 2016)
- Manifolds and groups, Ventotene, Italy. Co-organizer with Stefano Francaviglia, Roberto Frigerio, Alessandra Iozzi, Gabriele Mondello, Michah Sageev (7 - 12 Sept 2015)
- Growth, Symbolic Dynamics and Combinatorics of Words in Groups, ENS Paris, France. Co-organizer with Anna Erschler, Elisabeth Fink and Harald Helfgott, (1 - 5 June 2015)
- Arithmetic and allied subjects on the banks of the Neva. St. Petersburg, Russia. (24-28 November, 2014) Co-organizer with Harald Helfgott

PUBLICATIONS

- K. Juschenko, Amenability of finitely generated groups. *In preparation, book/survey.*
- K. Juschenko, P. Wesolek, Bounded automata groups are not elementary amenable. *In preparation.*
- Y. Hartman, K. Juschenko, O. Tamuz, P. Vahidi Ferdowsi, Thompson's group F is not strongly amenable. *Submitted. arXiv:1607.04915*
- K. Juschenko, Tianyi Zheng, Infinitely supported Liouville measures of Schreier graphs, *Submitted.*
- M. Chorny, K. Juschenko, V. Nekrashevych, On topological full groups of Z^d -actions. *Submitted. Preprint available at arXiv:1602.04255*
- H. Helfgott, K. Juschenko, Soficity, short cycles, weak stability and the Higman group. *Submitted. Preprint available at arXiv:1512.02135*
- K. Juschenko, N. Matte Bon, N. Monod, M. de la Salle, Extensive amenability and an application to interval exchanges. *To appear in Ergodic theory and dynamical systems. Preprint available at arXiv:1503.04977*
- K. Juschenko, Non-elementary amenable subgroups of automorphism group of a tree. *To appear in Journal of Topology and Analysis. Preprint available at arXiv:1504.00610*
- K. Juschenko, V. Nekrashevych, M. de la Salle. Extensions of amenable groups by recurrent groupoids. *To appear in Inventiones Math. Preprint available at arXiv:1305.2637*
- K. Juschenko, P. Nowak. Uniformly bounded representations and exact groups. *Journal of Functional Analysis* 266, no. 3, 1667-1673, 2014
- K. Juschenko, M. de la Salle. Invariant means of the wobbling group. *Bull. Belg. Math. Soc.* Volume 22, Number 2 (2015), 281-290
- K. Dykema, T. Heister, K. Juschenko. Finitely presented groups related to Kaplansky's direct finiteness conjecture. *Experimental Math.* 24 (2015), 326-338.
- K. Juschenko, T. Smirnova-Nagnibeda. On non-uniqueness of percolation on non-amenable Cayley graphs. *Proc. Amer. Math. Soc.* 143 (2015), 1449-1458
- K. Juschenko, N. Monod. Cantor systems, piecewise translations and simple amenable groups. *Annals of Math.* Volume 178, Issue 2, 775 - 787, (2013)
- K. Juschenko. A description of the logmodular subalgebras in the finite dimensional C^* -algebras. *Indiana University Math. Journal*, 60 No. 4, 1171-1176, (2011)
- K. Dykema, K. Juschenko. Matrices of unitary moments. *Mathematica Scandinavica* 109, no. 2, 225-239, (2011)
- K. Juschenko, S. Popovych. Algebraic reformulation of Connes' embedding problem. *Israel Journal of Math.*, 181, 305-315, (2011)
- K. Juschenko. Ideals of a C^* -algebra generated by an operator algebra. *Mathematische Zeitschrift*, 266, no. 3, 693-705, (2010)
- K. Juschenko, R. Levene, I. Todorov, L. Turowska. Compact operator multipliers. *Journal of Functional Analysis*, Volume 256, Issue 11, (2009)

K. Juschenko, S. Popovych. Matrix ordered operator algebras. *Indiana University Math. Journal*, Volume 59 No. 3, (2009)

K. Juschenko, I. Todorov, L. Turowska. Multidimensional operator multipliers. *Transactions of Amer. Math. Soc.*, 36, no. 9., (2009)

K. Juschenko. On group C^* -algebras of a semidirect product of commutative and finite groups. *Ukrainian Mathematical Journal*, Vol 57, No. 5, (2005).

K. Juschenko. On decompositions of affine Coxeter groups in semi-direct products, *Algebra and Discrete Mathematics*, Vol 3. (2004), pp. 59-69.

CONFERENCE PROCEEDINGS AND NOTES

C. Bleak, K. Juschenko, On C^* -simplicity of the Thompson group T. "Topological methods in geometric group theory", in honor of Ross Geoghegan's 70th birthday. *London Math. Soc. Lecture Notes series*.

K. Juschenko, Amenability and recurrent Schreier graphs, Oberwolfach Report No. 42/2013

K. Juschenko, Lectures on sofic groups, Available online on the homepage.