Curriculum Vitæ of Dmitri Pavlov

1. Academic History

Assistant Professor, Department of Mathematics and Statistics, Texas Tech University, September 2017–now.
Postdoc, Faculty of Mathematics, University of Regensburg, October 2015–August 2017.
Visitor, Max Planck Institute for Mathematics, Bonn, September 2015.
Visitor, Hausdorff Research Institute for Mathematics, Bonn, May 2015–August 2015.
Postdoc, Mathematical Institute, University of Göttingen, July 2014–April 2015.
Postdoc, Mathematical Institute, University of Münster, July 2011–June 2014.
University of California, Berkeley, August 2007–May 2011; Ph.D. in Mathematics, May 13, 2011;
Dissertation title: A decomposition theorem for noncommutative L_p-spaces and a new symmetric monoidal bicategory of von Neumann algebras.

2. Research Interests

Homotopy theory
Higher differential geometry
D-modules and mixed Hodge modules
Factorization algebras
Functorial quantum field theory
Tomita–Takesaki theory

3. Publications

P8. (with Jakob Scholbach) Modules over the de Rham cohomology spectrum. arXiv:1611.10134.

P7. (with Owen Gwilliam) Enhancing the filtered derived category. arXiv:1602.01515. Accepted (in press) by the Journal of Pure and Applied Algebra.

P6. (with Jakob Scholbach) Homotopy theory of symmetric powers. arXiv:1510.04969, doi:10.4310/HHA.2018.v20.n1.a20. Homology, Homotopy, and Applications 20:1 (2018), 359–397.

P5. (with Daniel Berwick-Evans) Smooth one-dimensional topological field theories are vector bundles with connection. arXiv:1501.00967. Submitted to Algebraic and Geometric Topology.

P4. (with Jakob Scholbach) Symmetric operads in abstract symmetric spectra. arXiv:1410.5699, doi:10.1017/S1474748017000202. Accepted (in press) by the Journal of the Institute of Mathematics of Jussieu.

P3. (with Jakob Scholbach) Admissibility and rectification of colored symmetric operads. arXiv:1410.5675, doi:10.1112/topo.12008. Accepted (in press) by the Journal of Topology.

P2. Algebraic tensor products and internal homs of noncommutative L_p-spaces. arXiv:1309.7856, doi:10.1016/j.jmaa.2016.11.060. Journal of Mathematical Analysis and Applications 456 (2017), 229–244.

P1. (with Yury Lifshits) Potential theory for mean payoff games. Journal of Mathematical Sciences 145:3 (2007), 4967–4974.

4. Principal Invited Talks Given

2017–7–27: Extended QFTs are local. Higher Structures Lisbon 2017.
2017–2–7: Concordances of geometric objects and representability of associated cohomology theories. Colloquium Talk, Department of Mathematics and Statistics, Texas Tech University.
2015–11–4: Abstract Simons-Sullivan construction for generalized differential cohomology. Oberseminar Globale Analysis, Regensburg.
2015–6–9: Concordance theory for homotopy sheaves. Hausdorff Research Institute for Mathematics, Bonn.
2014–11–18: Concordance theory for homotopy sheaves. Stanford University.
2014–11–13: Rectification of homotopy coherent algebraic structures to strict ones. Ohio State University.
2014–5–22: Concordance theory of homotopy sheaves. University of Regensburg.
2014–5–6: Tomita-Takesaki theory via modular algebras. NCGOA 2014 conference, Vanderbilt University.
2013–2–13: Two-dimensional Yang-Mills theory and equivariant TMF. University of Hamburg.
2012–10–16 and 2012–11–6: Two-dimensional Yang-Mills theory and string topology of classifying spaces as local Segal-style functorial field theories. University of Bochum.
2012–6–4: Differential cohomology and smooth topological field theories. FRG Conference on Topology and Field Theories at the University of Notre Dame.
2011–5–3: Jones index via a symmetric monoidal bicategory of von Neumann algebras. University of Notre Dame.
2010–12–1: Bivariant 0|1-dimensional field theories and de Rham homology and cohomology. University of Utrecht.
2010–8–6: 2|1-dimensional Euclidean field theories and noncommutative L^p-spaces. FRG Workshop on mathematical 2D-field theory and the algebraic topology of closed manifolds at Stony Brook University.
2009–10–20: Tensor products of noncommutative L_p-spaces and equivalences of categories of L_p-modules. University of Münster.

5. Seminars Organized

Assistant Professor, Texas Tech University
Fall 2018–now: Geometry Seminar
Postdoctoral Researcher, University of Münster
Fall 2011: Seminar on the cobordism hypothesis
Graduate Student, University of California, Berkeley
Spring 2011: String topology seminar

6. Teaching Experience

Assistant Professor, Texas Tech University
Fall 2018: Mathematics 5324 (Topology I)
Fall 2018: Mathematics 5365 (Analysis of Algorithms)
Spring 2018: Mathematics 6325 (Category Theory)
Fall 2017: Mathematics 2360 (Linear Algebra)
Postdoctoral Researcher, University of Regensburg
Fall 2015: Seminar on simplicial topology (assistant)
Fall 2015: Algebraic topology I (exercise class)
Postdoctoral Researcher, University of Göttingen
Fall 2014: Calculus 3: Integration on manifolds (exercise class)
Graduate Student Instructor, University of California, Berkeley
Spring 2011: Math 276 (Atiyah-Singer Index Theorem) (assistant)
Spring 2009: Math 54 (Linear Algebra and Differential Equations) (discussion section 105)
Fall 2008: Math 1B (Calculus) (discussion sections 102 and 106)