

Robin D. Tucker-Drob

CONTACT INFORMATION

Robin Tucker-Drob
Department of Mathematics
University of Florida
Gainesville, FL 32611
USA

E-mail: rtuckerd@gmail.com

ACADEMIC POSITIONS

- **Associate Professor with tenure, University of Florida.** August 2021 - present.
- **Associate Professor with tenure, Texas A&M University.** September 2020 - August 2021.
- **Assistant Professor, Texas A&M University.** September 2015 - September 2020.
- **NSF Postdoctoral fellow.** July 2013 - August 2015

Host institution: Rutgers University.
Scientific mentor: Simon Thomas.

EDUCATION

- **California Institute of Technology**, Pasadena, CA.
September 2008 - June 2013.
Ph.D. in Mathematics.
Thesis: *Descriptive set theory and the ergodic theory of countable groups.*
Advisor: Alexander Kechris.
- **University of Münster** (Westfälische Wilhelms-Universität), Münster, Germany
Visiting graduate fellow; June-July 2011.
- **Tulane University School of Engineering**, New Orleans, LA.
September 2004 - May 2008.
B.S. in Mathematics Cum Laude with departmental honors; May 2008.
Majors: Mathematics and Philosophy.
- **Pennsylvania State University**, State College, PA.
Mathematics Advanced Studies Semester (MASS) program; August-December 2007.
- **Columbia University**, New York, NY.
Visiting student and undergraduate course work; June 2005-August 2006.

PAPERS AND PUBLICATIONS

All papers are available through my website:
<https://people.clas.ufl.edu/r-tuckerdrob/publications/>

- **Measurable splittings and the measured group theoretic structure of wreath products**, with K. Wrobel. Preprint.
- **Asymptotic dynamics on amenable groups and van der Corput sets**, with S. Farhangi. Preprint.
- **About discrete subgroups of full groups of measure preserving equivalence relations**, with V. Alekseev, A. Carderi, and A. Thom. Preprint.
- **One-ended spanning subforests and treeability of groups**, with C.T. Conley, D. Gaboriau, and A.S. Marks. Preprint.
- **Borel asymptotic dimension and hyperfinite equivalence relations**, with C.T. Conley, S. Jackson, A.S. Marks, and B. Seward. *Duke Math. J.* 172(2023), no.16, 3175–3226.
- **Dynamical alternating groups, stability, property Gamma, and inner amenability**, with D. Kerr. To appear, *Annales Scientifiques de l'Ecole Normale Supérieure*.

- **CAT(0) cube complexes and inner amenability**, with B. Duchesne and P. Wesolek. *Groups Geom. Dyn.*15(2021), no.2, 371–411.
- **Groups with infinite FC-center have the Schmidt property**, with Y. Kida. *Ergodic Theory Dynam. Systems* 42 (2022), no. 5, 1662–1707.
- **Cost of inner amenable groupoids**, with K. Wrobel. *Proc. Amer. Math. Soc.*149(2021), no.10, 4303–4315.
- **Inner amenable groupoids and central sequences**, with Y. Kida. *Forum Math. Sigma* 8 (2020), Paper No. e29, 84 pp.
- **A new lattice invariant for lattices in totally disconnected locally compact groups**, with B. Duchesne and P. Wesolek. *Israel J. of Math.* 240.2 (2020): 539-565.
- **Superrigidity, measure equivalence, and weak Pinsker entropy**, with L. Bowen. *Groups Geom. Dyn.*16(2022), no.1, 247–286.
- **Invariant means and the structure of inner amenable groups**. *Duke Math. J.* 169.13 (2020): 2571-2628.
- **Hyperfiniteness and Borel combinatorics**, with C. Conley, S. Jackson, A. Marks, and B. Seward. *J. Eur. Math. Soc.* 22.3 (2019):877-892.
- **Cocycle superrigidity for translation actions of product groups**, with D. Gaboriau and A. Ioana. *Amer. J. Math.*, 141, no. 5 (2019): 1347-1374.
- **Folner tilings for actions of amenable groups**, with C. Conley, S. Jackson, D. Kerr, A. Marks, and B. Seward. *Math. Ann.* 371, no. 1-2 (2018): 663-683.
- **The space of stable weak equivalence classes of measure preserving actions**, with L. Bowen. *J. Funct. Anal.*274(2018), no.11, 3170–3196.
- **Weak containment rigidity for distal actions**, with A. Ioana. *Adv. in Math.*, 302 (2016), 309-322.
- **Approximations of standard equivalence relations and Bernoulli percolation at p_u** , with D. Gaboriau. *C.R. Math. Acad. Sci. Paris*, 354.11 (2016), 1114-1118.
- **Brooks’s Theorem for measurable colorings**, with C. Conley and A. Marks. *Forum Math. Sigma* 4 (2016), Paper No. e16, 23 pp.
- **Borel structurability on the 2-shift of a countable group**, with B. Seward. *Ann. Pure Appl. Logic*, 167 (2016), no. 1, 121.
- **Invariant random subgroups of inductive limits of finite alternating groups**, with S. Thomas. *Journal of Algebra*, 503 (2018) 474-533.
- **Invariant random subgroups of strictly diagonal limits of finite symmetric groups**, with S. Thomas. *Bull. London Math. Soc.* 46 (2014), no. 5, 1007-1020.
- **Mixing actions of countable groups are almost free**, *Proc. Amer. Math. Soc.* 143 (2015), no. 12, 5227-5232.
- **Weak equivalence and non-classifiability of measure preserving actions**, *Erg. Theory Dyn. Syst.*, 35 (2015), 293-336.
- **On a co-induction question of Kechris**, with L. Bowen. *Israel J. Math.* 194 (2013), no.1, 209–224.
- **Ultraproducts of measure preserving actions and graph combinatorics**, with C. T. Conley and A. S. Kechris. *Erg. Theory Dyn. Syst.*, 33 (2013), no. 2, 334-374.
- **The complexity of classification problems in ergodic theory**, with A. S. Kechris. *Appalachian Set Theory: 2006-2012*; J. Cummings and E. Schimmerling eds., *London Math. Soc. Lecture Note Series*, Cambridge University Press (2013).

FUNDING

- **NSF Grant DMS 2246684**. *Dynamical and descriptive aspects of groups and their actions* (\$243,111) 2023-2026.
- **NSF Grant DMS 1855825**. *Descriptive Dynamics: Group Actions and Their Measured, Borel, and Topological Structures*. (\$163,221) 2019-2023.
- **NSF Grant DMS 1600904**. *Descriptive set theory and measured group theory*.

(\$150,000) 2016-2019.

- **NSF Mathematical Sciences Postdoctoral Research Fellowship.** 2013-2015.
- American Institute of Mathematics (AIM), SQuaRE (Structured Quartet Research Ensembles), *Measured group theory and combinatorics.* (with Clinton Conley, Kate Juschenko, Omer Tamuz, and Anush Tserunyan), 2022-2025.
- American Institute of Mathematics (AIM), SQuaRE (Structured Quartet Research Ensembles), *Measurable Graph Theory,* (with Clinton Conley, Steve Jackson, Andrew Marks, and Brandon Seward), 2015-2017.

CONFERENCE
ORGANIZATION

- Oberwolfach Workshop proposal A2560 (approved). Scheduled for 2026. (With D. Kerr, A. Tserunyan, and T. Zheng).
- Southeastern Logic Symposium (SEALS) 2022, 2023, 2024, 2025. (With D. Bartořová, D. Cenzer, and J. Zapletal).
- Oberwolfach Workshop: *Groups and Dynamics: Topology, Measure, and Borel Structure.* (With D. Kerr and A. Tserunyan). January 2022.
- CIRM workshop: *Measurable, Borel, and Topological Dynamics.* (With C. Conley, J. Melleray, and T. Tsankov). October 2019.

SCHOLASTIC
AWARDS AND
FELLOWSHIPS

- **Scott Russell Johnson Dissertation Prize.** 2013. California Institute of Technology. Awarded for the best graduate dissertation in mathematics.
 - **Scott Russell Johnson Prize for Excellence in Graduate Research.** 2012. California Institute of Technology. Awarded for excellence in research.
 - **Terry C. Lawson Prize.** 2008. Tulane University. Awarded for the best research by a graduating senior.
 - **Mathematics Advanced Studies Semester (MASS) Merit Fellowship Award** (Highest level). 2007. Penn State University. Awarded to three students at MASS 2007 for the best overall performances.
 - **Mathematics Advanced Studies Semester Award** for the best performance on the MASS geometry examination. 2007. Penn State University.
 - **Penn State Mathematics Advanced Studies Semester Fellowship.** 2007. Penn State University. Tuition reduction fellowship.
 - **National Science Foundation MASS Fellowship.** 2007. Provides an additional stipend at MASS.
 - **National Science Foundation REU Fellowship.** 2007. Research Experience for Undergraduates (REU) at Missouri State University (Supported by the National Science Foundation); Advisor: Professor Leslie F. Reid.
 - **Founders Scholarship.** 2004 - 2008. Tulane University.
-