

# Linda Brown Westrick – Curriculum Vitae

## Contact

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## Education

1. Ph.D. in Mathematics, University of California-Berkeley, May 2014.  
Advisor: Theodore Slaman.
2. B.S. in Mathematics, Massachusetts Institute of Technology, February 2009.

## Employment

1. Assistant Research Professor/Postdoctoral Fellow, University of Connecticut, 2016-present
2. Postdoctoral Fellow, Victoria University of Wellington, 2015-2016
3. Postdoctoral Fellow, University of Connecticut, 2014-2015

## Research Interests

Mathematical logic and computability theory, especially interactions with classical real analysis, descriptive set theory, Ramsey theory, algorithmic information theory and symbolic dynamics.

## Publications

1. L. Westrick. An effective analysis of the Denjoy rank. Submitted.
2. D. Dzhafarov, S. Flood, R. Solomon & L. Westrick. Effectiveness for the Dual Ramsey Theorem. Submitted.
3. L. Westrick. Weakly 2-randoms and 1-generics in Scott sets. To appear in *Journal of Symbolic Logic*.
4. N. Greenberg, J. Miller, A. Shen & L. Westrick. Dimension 1 sequences are close to randoms. To appear in *Theoretical Computer Science*.
5. N. Greenberg, D. Turetsky & L. Westrick. Finding bases of uncountable free abelian groups is usually difficult. To appear in *Transactions of the American Mathematical Society*.
6. L. Westrick. Seas of squares with sizes from a  $\Pi_1^0$  set. To appear in *Israel Journal of Mathematics*.

7. D. Dzhafarov, C. Jockusch, R. Solomon & L. Westrick. Effectiveness in Hindman's Theorem for bounded sums. In *Computability and complexity*, volume 10010 of *Lecture Notes in Computer Science*, pages 134-142. Springer, Cham, 2017.
8. D. Dzhafarov, L. Patey, R. Solomon & L. Westrick. Ramsey's Theorem for singletons and strong computable reducibility. *Proceedings of the American Mathematical Society*, 145(3):1343-1335, 2017.
9. L. Westrick. A lightface analysis of the differentiability rank. *Journal of Symbolic Logic*, 79(1):240-265, 2014.

## Papers in preparation

1. A. Day, R. Downey & L. Westrick. Reducibilities for discontinuous functions.
2. E. Astor, L. Bienvenu, D. Dzhafarov, L. Patey, P. Shafer, R. Solomon, & L. Westrick. The weakness of typicality.

## Invited talks at conferences

1. ASL North American Meeting, Special Session on Computability, Macomb, Illinois. May 2018.
2. South-Eastern Logic Symposium (SEALS), Gainesville, Florida. March 2018.
3. **Plenary speaker**, Computability and Complexity in Analysis 2017, KAIST, Daejeon, Korea. July 2017.
4. Asian Logic Conference 2017, Special Session on Computability, NIMS, Daejeon, Korea. July 2017.
5. AMS Eastern Sectional Meeting, Special Session on Computability Theory: Pushing the Boundaries, Hunter College, New York City. May 2017.
6. **ASL Invited Address**, ASL Winter Meeting at the Joint Mathematics Meetings, Atlanta. January 2017.
7. Midwestern Computability Seminar, Special Meeting in Honor of Carl Jockusch's 75th Birthday, University of Chicago. October 2016.
8. AMS Fall Central Sectional Meeting, Special Session on Effective Mathematics in Discrete and Continuous Worlds, University of St. Thomas, Minneapolis. October 2016.
9. Computability, Complexity & Randomness, University of Hawaii, Honolulu. January 2016.
10. ASL North American Annual Meeting, Special Session on Computability, University of Illinois at Urbana-Champaign. March 2015.
11. SouthEastern Logic Symposium (SEALS), University of Florida, Gainesville. February 2015.
12. Canadian Mathematical Society Winter Meeting, Special Session on Computability Theory, Hamilton. December 2015.

13. Workshop on Computability Theory, Prague. July 2014.
14. AMS Central Sectional Meeting, Special Session on Computability Across Mathematics, Washington University, St. Louis. October 2013.

## Invited workshops and research visits

1. Dagstuhl Seminar. Measuring the Complexity of Computational Content: From Combinatorial Problems to Analysis. September 2018.
2. Oberwolfach Workshop. Computability Theory. January 2018.
3. Institute for Mathematical Sciences Workshop (speaker). Aspects of Computation: Algorithmic Randomness, Singapore. September 2017.
4. University of Nagoya. August 2017.
5. Dagstuhl Seminar (speaker). Computability Theory. February 2017.
6. BIRS-CMO Workshop (speaker). Algorithmic Randomness Interacts with Analysis and Ergodic Theory, Oaxaca. December 2016.
7. University of Wisconsin-Madison. October 2016.
8. CIRM Workshop (speaker). Computability, Randomness and Applications, Luminy. June 2016.
9. University of Florida-Gainesville. May 2015.

## Grants and Awards

1. **UConn Provost recognition as faculty who excel in teaching**, 2017.
2. Schloss Dagstuhl-NSF Support Grant for Dagstuhl Seminar, 2017.
3. UConn Provost recognition as faculty who excel in teaching, 2015.
4. ASL Student Travel Grants for CiE 2014 and VSL Logic Colloquium 2014.
5. P.E.O. International Scholar Award, 2013 (\$15,000 for the dissertation year).
6. **UC-Berkeley Outstanding Graduate Student Instructor Award**, 2013.
7. NSF Graduate Research Fellowship Honorable Mention, 2010.
8. Ranked in top 10% of MIT math majors, 2008.

## Teaching experience

### Instructor of record at University of Connecticut

1. Probability (**upper division**), Spring 2018,  $\approx 30$  students.
2. Analysis I (upper division), Spring 2018,  $\approx 30$  students.
3. Geometry, Fall 2017,  $\approx 20$  students.
4. Graduate reading course in descriptive set theory (informal), Summer 2017, 1 student.

5. Effective Descriptive Set Theory (**graduate**), Spring 2017, 5 students.
6. Transition to Advanced Mathematics, Spring 2017,  $\approx 30$  students.
7. Multivariable Calculus, Fall 2016,  $\approx 30$  students.
8. Calculus I (**large lecture**), Fall 2016,  $\approx 300$  students, 5 TAs.
9. Computability Theory (graduate), Spring 2015,  $\approx 10$  students.
10. Calculus I (large lecture), Spring 2015,  $\approx 90$  students, 2 TAs.
11. Multivariable Calculus, Fall 2014,  $\approx 60$  students in 2 small lectures.

### **Instructor of record at Victoria University of Wellington**

1. Precalculus (large lecture), Spring 2016,  $\approx 200$  students, 5 TAs.
2. Linear Algebra, Fall 2016,  $\approx 70$  students, 3 TAs, instructor of record for half the course.

### **Graduate Student Assistant at UC-Berkeley**

1. Professional Development Program (serves under-represented groups); Calculus 1A & 1B, Linear Algebra, 2011-2012.
2. Calculus 1B, Linear Algebra, 2009-2010.

### **Selected Activities**

1. Visiting Graduate Student at the University of Buenos Aires. Spring 2013.
2. Machine Learning Intern at Prior Knowledge startup (MCMC, Python). Summer 2012.
3. Visiting Fellow at the Isaac Newton Institute, Cambridge, UK. January 2012.
4. IPAM Graduate Summer School in Probabilistic Models of Cognition, UCLA. July 2011.
5. AII Graduate Summer School in Logic, National University of Singapore. Summer 2010.

### **Service & Community**

1. Reviewing for Journal of Symbolic Logic, Computability in Europe, Forum of Mathematics, Sigma; and MathSciNet. 2015-present.
2. Member of the Association for Symbolic Logic. 2007-present.
3. Program Committee member for the conference Computability, Complexity and Randomness, 2018.
4. Speaker at UConn undergraduate math club, April 2017.
5. Panelist at “Applying for grad school” session for UConn undergraduates, April 2015.
6. Officer of the UC-Berkeley Math Graduate Student Association. 2011-2012.
7. Mathspace Chair (undergrad mentoring program run by math graduate students). 2009-2010.