

# NAM TRANG

## CURRICULUM VITAE

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CURRENT POSITION Visiting Assistant Professor

CONTACT INFORMATION Department of Mathematics  
University of California, Irvine  
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UNDERGRADUATE INSTITUTIONS

- September 2004 – June 2007: University of California, Irvine; Irvine, CA, USA
- August 2002 – June 2004: Saddleback College; Mission Viejo, CA, USA

GRADUATE INSTITUTIONS

- August 2007 – June 2013: University of California, Berkeley; Berkeley, CA, USA

POSTDOCTORAL INSTITUTIONS

- July 2015 – present: University of California, Irvine; Irvine, CA, USA
- August 2013 – June 2015: Carnegie Mellon University; Pittsburgh, PA, USA

AWARDS AND GRANTS

- The Howard Tucker Award, Outstanding Senior in Mathematics, 2007.
- NSF Grant DMS-1565808, 2016–2019.

SYNERGETIC AND EDUCATIONAL ACTIVITIES

- Contributor to the Virtual Math Museum (<http://3d-xplormath.org/>) by writing Java code for 3D-XplorMath-J, which is a cross-platform museum that exhibits a host of interesting mathematical objects and helps learning geometry via visualization.
- 2014: Served on Chris Lambie-Hanson's PhD thesis committee at CMU.
- 2016: Co-advised and served on Daniel Rodriguez's PhD thesis committee at CMU.
- Co-organizer of the 2016 Conference on Descriptive Inner Model Theory and Hod Mice, UC Irvine, 18–29 July, 2016.
- 2016: Participate (as both Assistant and Leader) to the UCI Math Circle. The goal of the program is to bring together faculty, graduate students from UCI and high school/middle school students in Orange County with the goal of helping the students explore advanced mathematics and promote mathematical creativity.
- Participating in the UCI Center for Engaged Instruction's pedagogical programs with the goal of earning a Certificate in Teaching Excellence in Spring 2017.
- NSF Panelist.
- Reviewer for the AMS Mathematical Reviews.
- 2016: Supervising an independent reading course for Paul Smith, an undergraduate student at UCI, on topology and set theory.

PUBLICATIONS

- 1) Trang, N., HOD in natural models of  $AD^+$ , Annals of Pure and Applied Logic, 165(10), 2014, 1533-1556
- 2) Trang, N., Determinacy in  $L(\mathbb{R}, \mu)$ , Journal of Mathematical Logic, 14(01), 2014, 23 pages
- 3) Sargsyan, G. and Trang, N., Non-tame mice from tame failures of the unique branch hypothesis, Canadian Journal of Mathematics, 66(4), 2014, 903-923

- 4) Trang, N., PFA and guessing models, *Israel Journal of Mathematics*, 215 (2016), 607–667, <http://dx.doi.org/10.1007/s11856-016-1390-x>.
- 5) Trang, N., Structure theory of  $L(\mathbb{R}, \mu)$  and its applications, *Journal of Symbolic Logic*, 80(01), 2015, 29-55.
- 6) Trang, N., Derived models and supercompact measures on  $\wp_{\omega_1}(\wp(\mathbb{R}))$ , *Mathematical Logic Quarterly*, 61(1-2), 2015, 56-65.
- 7) Sargsyan, G. and Trang, N., Tame failures of the unique branch hypothesis and models of  $\text{AD}_{\mathbb{R}} + \Theta$  is regular, *Journal of Mathematical Logic*, 16(02), 2016, 31 pages, 10.1142/S0219061316500070, .
- 8) Shi, X. and Trang, N.,  $I_0$  and combinatorics at  $\lambda^+$ , *Archive of Mathematical Logic*, 2016, 24 pages, DOI 10.1007/s00153-016-0518-3.

#### PREPRINTS

- 9) Steel, J.R. and Trang, N.,  $\text{AD}^+$ , derived models, and  $\Sigma_1$ -reflection, 1<sup>st</sup> Conference on the Core Model Induction and Hod Mice, Institut für Mathematische Logik, WWU Münster, Aug 08–Aug 19, 2011
- 10) Rodríguez, D. and Trang, N.,  $L(\mathbb{R}, \mu)$  is unique, submitted to *Advances in Mathematics*, 2015.
- 11) Schlutzenberg, F. and Trang, N., Scales in hybrid mice over  $\mathbb{R}$ , submitted to the *Annals of Pure and Applied Logic*, 2016.
- 12) Schlutzenberg, F. and Trang, N., The fine structure of operator mice, submitted to the *Archive of Mathematical Logic*, 2016.
- 13) Wilson, T. and Trang, N., Determinacy from strong compactness of  $\omega_1$ , submitted to the *Annals of Pure and Applied Logic*, 2016.
- 14) Ikegami, D., and Trang, N., On a class of maximality principles, submitted to the *Archive of Mathematical Logic*, 2016.

#### BOOKS

- 1) Sargsyan, G., and Trang, N., *The largest Suslin axiom*, book, submitted to the Springer’s Lecture Notes in Logic series, 2016.

#### REVIEWED ARTICLES

1. Wilson, Trevor, The Envelope of a Pointclass under a Local Determinacy Hypothesis, *Annals of Pure and Applied Logic*.
2. Schimmerling, Ernest, A Core Model Toolbox and Guide, a book chapter in *The Handbook of Set Theory*.
3. Mitchell, William, Inner Models for Large Cardinals, a book chapter in *Sets and extensions in the twentieth century*.

#### COLLABORATORS

- Daisuke Ikegami, Tokyo Denki University; Tokyo, Japan
- Daniel Rodriguez, Carnegie Mellon University, USA
- Grigor Sargsyan, Rutgers University; Piscataway, NJ, USA
- Farmer Schlutzenberg, WWU Münster, Münster, Germany, USA
- Xianghui Shi, Beijing Normal University; Beijing, China
- John R. Steel, University of California, Berkeley; Berkeley, CA, USA
- Trevor Wilson, Miami University; Oxford, OH, USA
- Martin Zeman, University of California, Irvine; Irvine, CA, USA

#### GRADUATE ADVISORS AND POSTDOCTORAL SPONSORS

- John R. Steel, University of California, Berkeley; Berkeley, CA, USA (Thesis advisor)
- Ernest Schimmerling, Carnegie Mellon University; Pittsburgh, PA, USA (Postdoctoral Sponsor)
- Martin Zeman, University of California, Irvine; Irvine, CA, USA (Postdoctoral Sponsor)