
CONTACT INFORMATION	University of Notre Dame, Department of Mathematics, 255 Hurley Bldg Notre Dame, IN 46556 USA	mtran6@nd.edu https://sites.nd.edu/cmtran/
RESEARCH INTEREST	Mathematical logic, more specifically model theory and interactions with algebra, analysis, combinatorics, and geometry.	
CAREER	University of Notre Dame Kenna Visiting Assistant Professor (postdoc).	Fall 2019 - pres
EDUCATION	University of Illinois at Urbana-Champaign Ph.D. in Mathematics (Aug 2019); Dissertation topic: Model theory of structures with partial randomness; Advisor: Lou van den Dries.	Fall 2013 - Spring 2019
	National University of Singapore B.A. Honors, Mathematics (First class).	Fall 2006 - Spring 2010
PUBLISHED & ACCEPTED	<p><i>The étale-open topology and the stable field conjecture</i> (with Will Johnson, Erik Walsberg, and Jinhe Ye), Preprint arXiv:2009.02319, accepted to Journal of the European Mathematical Society.</p> <p><i>Stable formulas in ordered structures</i> (with Daniel Hoffmann and Jinhe Ye), Preprint arXiv:2004.10953, accepted pending minor revisions by Israel Journal of Mathematics.</p> <p><i>A family of dp-minimal expansions of $(\mathbb{Z}; +)$</i> (with Erik Walsberg), Preprint arXiv:1711.04390, accepted pending minor revisions by Notre Dame Journal of Formal Logic.</p> <p><i>Zarankiewicz's problem for semilinear hypergraphs</i> (with Abdul Basit, Artem Chernikov, Sergei Starchenko, and Terence Tao), Forum of Mathematics, Sigma, volume 9, 2021</p> <p><i>Interpolative fusions</i> (with Alex Kruckman and Erik Walsberg), Journal of Mathematical Logic. 2020 Nov 28:2150010</p> <p><i>The additive groups of \mathbb{Z} and \mathbb{Q} with predicates for being square-free</i> (with Neer Bhardwaj), The Journal of Symbolic Logic, vol. 85 (2020).</p>	
PREPRINTS	<p><i>On the small measure expansion phenomenon in connected noncompact nonabelian groups</i> (with Jinpeng An, Yifan Jing, and Ruixiang Zhang), Preprint arxiv:2111.05236, submitted.</p> <p><i>A Cauchy-Davenport theorem for locally compact groups</i> (with Yifan Jing), Preprint arXiv:2106.02924, 2021, submitted.</p> <p><i>A nonabelian Brunn–Minkowski inequality</i> (with Yifan Jing and Ruixiang Zhang), Preprint arXiv:2101.07782, 2021, submitted.</p> <p><i>Minimal and nearly minimal measure expansions in connected unimodular groups</i> (with Yifan Jing), Preprint arXiv:2006.01824, 2021.</p> <p><i>Semialgebraic method and generalized sum-product phenomena</i> (with Yifan Jing and Souktik Roy), Preprint arXiv:1910.04904, 2019, submitted.</p> <p><i>Tame structures via multiplicative character sums on varieties over finite fields</i>, Preprint arXiv:1704.03853, 2017, submitted.</p>	

INVITED TALKS

Logic Seminar, Ohio State University; Columbus, Ohio (Nov 2021).
Discrete Analysis Seminar, California Institute of Technology; Pasadena, California (Oct 2021).
Logic Seminar, University of Illinois at Chicago; Chicago, Illinois (Sep 2021).
Logic Colloquium, University of California at Berkeley; Berkeley, California (Feb 2021).
Model theory Seminar, University of Oxford; Oxford, England (Jan 2021).
Model theory special session, Chinese Annual Conference on Mathematical Logic; Nankai, China (Nov 2020).
Logic Seminar, National University of Singapore; Singapore (Oct 2020).
Logic Seminar, University of Warsaw; Warsaw, Poland (Oct 2020).
Discrete Mathematics Seminar, Iowa States University; Ames, Iowa (Oct 2020).
Logic Seminar, University of California at Irvine; Irvine, California (Dec 2019).
Model Theory Special Session, ASL North American Annual Meeting; Macomb, Illinois (May 2018).
Logic Seminar, Indiana University; Bloomington, Indiana (April 2018).
Model Theory Seminar, University of California at Berkeley; Berkeley, California (Nov 2017).
Logic Seminar, Ohio State University; Columbus, Ohio (Nov 2017).
Logic Seminar, University of Notre Dame; South Bend, Indiana (Sep 2017).
Logic Seminar, University of Illinois at Chicago; Chicago, Illinois (Sep 2017).
Cabal Seminar, University of California at Los Angeles; Los Angeles, California (Jan 2017).
Model Theory Seminar, University of California at Berkeley; Berkeley, California (Mar 2016).

SERVICE

Organizer, Contributed Minisymposia on Arithmetic Combinatorics CanaDAM 2021, Secret model theory reading seminar, O-minimality and Diophantine geometry seminar.

AWARDS
& GRANTS

Bourgin Fellowship, Department of Mathematics, University of Illinois at Urbana-Champaign (Spring 2019)
Research Support Award, Research Board, University of Illinois at Urbana-Champaign, (grant co-written with Lou van den Dries, Spring 2018, Summer 2018).
Research Assistantship, University of Illinois at Urbana-Champaign, (Summer 2014, Fall 2016, Summer 2016, Spring 2017 25%, Summer 2017, Fall 2017).
 On *List of Teachers Ranked as Excellent*, University of Illinois at Urbana-Champaign, (Fall 2014, Spring 2015, Fall 2015, Fall 2016).
Dean List, National University of Singapore (Fall 2006, Spring 2007, Fall 2009).
Asean Scholarship, National University of Singapore (2006-2010).
International Mathematics Olympiads, Silver medal (2006).

REFERENCE

Lou van den Dries, Professor, Department of Mathematics, University of Illinois at Urbana-Champaign, vddries@math.uiuc.edu
Anand Pillay, Professor, Department of Mathematics, University of Notre Dame, apillay@nd.edu
Sergei Starchenko, Professor, Department of Mathematics, University of Notre Dame, sstarche@nd.edu