

# Nicholas Ramsey

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CONTACT INFORMATION	Department of Mathematics University of Notre Dame 255 Hurley Bldg Notre Dame, IN 46556 USA	+01 (574) 631-7245 <a href="mailto:sramsey5@nd.edu">sramsey5@nd.edu</a> Office: Hayes-Healy 122 <a href="https://www.nramseymath.com/">https://www.nramseymath.com/</a>
RESEARCH INTERESTS	Model theory, in the sense of mathematical logic, and its applications to algebra and finite and infinitary combinatorics	
EMPLOYMENT	<b>University of Notre Dame</b> Assistant Professor, 2022—  <b>University of California, Los Angeles</b> Hedrick Visiting Assistant Professor, 2018—2022 (on leave Academic Year 2019-2020)  <b>École Normale Supérieure—Fondation Sciences Mathématiques de Paris</b> Postdoctoral Fellow, 2019—2020	
EDUCATION	<b>University of California, Berkeley</b> Ph.D. in Logic & the Methodology of Science, May 2018 • Advisor: Thomas Scanlon  <b>Université Paris Diderot - Paris 7</b> M2 in Mathematical Logic and the Foundations of Computer Science, June 2013  <b>University of Chicago</b> A.B. in Mathematics, June 2012	
PUBLICATIONS AND PREPRINTS	<ol style="list-style-type: none"><li>1. <i>On model-theoretic tree properties</i> with Artem Chernikov, Journal of Mathematical Logic, 16 (2), 41p. (2016).</li><li>2. <i>Invariants related to the tree property</i> Israel Journal of Mathematics, 240 (1), 275-314, 2020.</li><li>3. <i>On Kim-independence</i> with Itay Kaplan, Journal of the European Mathematical Society 22 (5), 1423-1474 (2020).</li><li>4. <i>Generic expansion and Skolemization in <math>NSOP_1</math> theories</i> with Alex Kruckman, Annals of Pure and Applied Logic 169 (8), 755-774 (2018).</li><li>5. <i>Local character for Kim-independence</i> with Itay Kaplan and Saharon Shelah, Proceedings of the American Mathematical Society 147 (4), 1719-1732 (2017).</li><li>6. <i>A note on <math>NSOP_1</math> in one variable</i> The Journal of Symbolic Logic 84 (1), 388-392 (2019).</li></ol>	

7. *Transitivity of Kim-independence*  
with Itay Kaplan, Advances in Mathematics, 379 (5), March 2021.
8. *Independence over arbitrary sets in  $NSOP_1$  theories*  
with Jan Dobrowolski and Byunghan Kim, Annals of Pure and Applied Logic, accepted.  
(arXiv:1909.08368)
9. *Criteria for exact saturation and singular compactness*  
with Itay Kaplan and Saharon Shelah, Annals of Pure and Applied Logic, 172 (9),  
(2021).
10. *Transitivity, lowness, and ranks in  $NSOP_1$  theories*  
with Artem Chernkov and Byunghan Kim, submitted. (arXiv:2006.10486)
11. *Exact saturation in pseudo-elementary classes for simple and stable theories*  
with Itay Kaplan and Saharon Shelah, submitted. (arXiv:2009.08365)
12. *Invariant measures in simple and in small theories*  
with Artem Chernikov, Ehud Hrushovski, Alex Kruckman, Krzysztof Krupinski, Slavko  
Moconja, Anand Pillay, submitted. (arXiv:2105.07281)
13. *Measures on perfect  $e$ -free PAC fields*  
with Zoé Chatzidakis, submitted.

#### TALKS

1. *Invariants related to the tree property*  
Logic Seminar, University of Illinois at Chicago, April 2015
2. *Model-theoretic tree properties*  
Neostability Theory Workshop, Casa Matemática Oaxaca, July 2015
3. *Trees and the global combinatorics of first-order theories*  
Logic Seminar, UCLA, November 2015
4. *Local and global tree properties in model theory*  
Logic Seminar, Hebrew University of Jerusalem, May 2016
5. *Kim-independence and  $NSOP_1$*  I, II  
Logic Seminar, Yonsei University, January 2017
6.  *$NSOP_1$ , Kim-independence, and simplicity at a generic scale*  
Séminaire Théorie des Modèles et Groupes, Paris 7, March 2017
7.  *$NSOP_1$  theories*  
Seminar in Logic, Set Theory, and Topology, Ben Gurion University, April 2017
8. *Definability in the absolute Galois group of a PAC field*  
Logic Seminar, Hebrew University of Jerusalem, May 2017
9. *Stationary logic and the local character of Kim-independence*  
Set theoretic & Topological Methods in Model Theory, Indian Statistical Institute,  
Tezpur, September 2017
10. *Around exact saturation*  
AMS Special Session on Model Theory, UC Riverside, November 2017

11. *Kim-independence and  $NSOP_1$*   
Logic Set Theory Seminar, UC Irvine, November 2017
12. *Examples of  $NSOP_1$  theories*  
Logic Seminar, Notre Dame University, November 2017
13. *Around exact saturation*  
Logic Seminar, University of Indiana, November 2017
14. *Simplicity at a generic scale*  
Logic Seminar, Rutgers University, November 2017
15. *Keisler measures in simple theories*  
Junior seminar, Institut Henri Poincaré, March 2018
16. *Keisler measures in simple theories*  
ASL Special Session in Model Theory, Western Illinois University, May 2018
17. *Keisler measures in simple theories*  
Logic Seminar, Hebrew University of Jerusalem, June 2018
18. *Classification theory and the construction of PAC fields*  
+972 Seminar, Weizmann Institute of Science, July 2018
19. *Classification theory and the construction of PAC fields*  
Neostability Theory Workshop, Casa Matemática Oaxaca, October 2018
20. *Kim-independence and  $NSOP_1$*   
Logic Colloquium, UCLA, November 2018
21. *Keisler measures in simple theories*  
Logic Seminar, University of Indiana, April 2019
22. *Exact saturation in pseudo-elementary classes*  
Logic Seminar, University of Wisconsin, April 2019
23. *Possibilities for a theory of independence beyond  $NTP_2$  and  $NSOP_1$*   
Logic Seminar, Hebrew University of Jerusalem, June 2019
24. *The transitivity of Kim-independence*  
Séminaire Théorie des Modèles et Groupes, Université de Paris, October 2019
25. *The transitivity of Kim-independence*  
Logic Seminar, Université Lyon I, November 2019
26. *An introduction to model theory*  
American University of Cairo, November 2019
27. *Cardinal invariants and tree properties*  
Model Theory: Groups, Geometries, and Combinatorics, Oberwolfach, January 2020
28. *Classification theory and the construction of PAC fields*  
RDMTA, Mons, February 2020

29. *Cardinal invariants and tree Properties*  
Logic Seminar, Oxford University, February 2020
30. *Classification theory and the construction of PAC fields*  
Logic Seminar, Oxford University, February 2020
31. *Around exact saturation*  
Séminaire Général de Logique, Université de Paris, February 2020
32. *Les décompositions paradoxales et les théories simples*  
Séminaire Théorie des Modèles et Groupes, Université de Paris, March 2020
33. *Constructing PAC fields*  
Séminaire Géométrie et Théorie des Modèles, École Normale Supérieure, March 2020
34. *Kim-independence over arbitrary sets*  
Logic Seminar, University of Helsinki, March 2020
35. *Model-theoretic tree properties*  
Midwest Model Theory Seminar, UChicago & UIC, August 2020
36. *Groups and measures in simple theories*  
DDC: Model Theory Seminar, MSRI, November 2020
37. *Groups and measures in simple theories*  
Logic seminar, Imperial/QMUL, November 2020
38. *Measures in model theory*  
Department colloquium, Notre Dame University, January 2021
39. *Measures in model theory*  
Logic Colloquium, UC Berkeley, March 2021
40. *Exact saturation in pseudo-elementary classes*  
Boise Extravaganza in Set Theory, Boise State University, June 2021
41. *Kim-independence*  
University of Waterloo, Colloquium, November 2021
42. *Binarity, Treelessness, and Generic Stability*  
Lancashire Yorkshire Model Theory Seminar, January 2022
43. *Independence and Classification in Model Theory*  
Department colloquium, Notre Dame University, January 2022
44. *Independence and Classification in Model Theory*  
Department colloquium, Missouri State University, January 2022

TEACHING EXPERIENCE			<i>At Berkeley</i>
	Fall	2013	GSI (Teaching Assistant) Calculus II (Math 1B)
	Spring	2014	GSI (Teaching Assistant), Multivariable Calculus (Math 53)
	Summer	2014	GSI (Lecturer) Multivariable Calculus (Math 53)
	Fall	2014	GSI (Teaching Assistant) Multivariable Calculus (Math 53)
	Spring	2015	GSI (Teaching Assistant), Linear Algebra and Differential Equations (Math 54)
	Fall	2015	GSI (Teaching Assistant) Calculus II (Math 1B)
	Spring	2016	GSI (Teaching Assistant) Discrete Math (Math 55)
	Summer	2016	GSI (Lecturer) Complex Analysis (Math 185)
	Fall	2016	GSI (Teaching Assistant) Discrete Math (Math 55)
	Summer	2017	GSI (Lecturer), Complex Analysis (Math 185)
			<i>At UCLA</i>
	Fall	2018	Calculus II (Math 31B)
	Fall	2018	Discrete Structures (Math 61)
	Winter	2019	Analysis I (Math 131A)
	Fall	2020	Discrete Structures (Math 61)
	Fall	2020	Topics in Model Theory (Math 223M)
	Fall	2021	Calculus (Math 31A)
	Fall	2021	Discrete Structures (Math 61)
	Winter	2022	Research Seminar: Ramsey Theory (Math 191)
			<i>At the Nesin Mathematics Village</i>
	Summer	2019	Homogeneous Structures
	Summer	2021	Ultrafilters and Ramsey Theory
			<i>At Fudan University</i>
	Fall	2020	Mini-course on Kim-independence and NSOP <sub>1</sub> theories
AWARDS	2016	Outstanding Graduate Student Instructor Award	
	2017	Teaching Effectiveness Award	
	2018	Herb Alexander Prize for outstanding dissertation in pure mathematics	
	2019	CNRS-Imperial “Abraham de Moivre” lab STEG Grant (with Charlotte Kestner)	
	2021	AMS Simons Travel Grant	
SERVICE	2014–2016	Coordinator, UC Berkeley Directed Reading Program	
	2017–	Referee: Advances in Mathematics, Annales de l’Institut Fourier, Annals of Pure and Applied Logic, Bollettino dell’Unione Matematica Italiana, Fundamenta Mathematicae, Israel Journal of Mathematics, Journal of Mathematical Logic, Journal of Symbolic Logic, Mathematical Logic Quarterly, Notre Dame Journal of Formal Logic, Selecta Mathematica	
	2019–	Reviewer for Mathematical Reviews, zbMATH	
	2021–	Organizer, ASL Special Session on Model-theoretic Classification	
	2021–	Member, UCLA Math Department Teaching Committee	