Apurva Nakade

Johns Hopkins University, anakade1@jhu.edu
Department of Mathematics math.jhu.edu/∼anakade1

Interests Homotopy theory, Algebraic topology, Mathematical Physics, Symplectic Topology, Math Education, Web design

Education

Ph.D. in Mathematics, Johns Hopkins University (expected) 2019
M.Sc. in Mathematics, Chennai Mathematical Institute 2013
B.Tech. in Computer Science & Engineering, IIT Kanpur 2010

Papers

Manifold Calculus and the H-principle (submitted) 2017

Effect of increasing the energy gap between the two lowest energy states on the mixing time of the Metropolis algorithm (with Somenath Biswas), Information Processing Letters, IPL4801 (2012.08.012) 2012

Research Talks

Homotopy colimits and limits 2017
European Autumn School in Topology

Manifold Calculus and the H-principle
AMS Special Session in Homotopy Theory

Teaching & Mentoring

Prof. Joel Dean award for Excellence in Teaching in Mathematics 2016

Direct Reading Program, JHU 2017
guided an undergraduate student towards learning Knot theory

USA/Canada Mathcamp, Mentor
taught and designed several courses at a math enrichment camp for high school students, and was a residential and academic advisor

H2G2 Algebraic Topology, JHU
designed and taught short course introducing non-maths majors to algebraic topology

IBL Honors Calculus, JHU
designed and taught a full semester IBL styled course for Calculus

Symmetries & Polynomials, JHU 2018
will be teaching a short course introducing non-maths majors to Galois theory

Algebra Quals Prep, JHU 2015-16
coached the first year graduate students for the algebra quals

Science of Learning Symposium, JHU 2014-18
attended a biannual two day conference at JHU aimed at understanding the science behind learning

Service	*Instructor*, JHU	
Courses	Honors Single Variable Calculus	2017
	Calculus II	2016
	Differential Equations	2015
	(Online) Linear Algebra	2014
	TA, JHU	2013-
	Calculus I, II and III, Hon. Linear Algebra, Hon. Multivariable Calculus	
	TA, CMI	2012
	Compact Riemann Surfaces, Advanced Algebra	
Conferences	AMS Sectional Meeting, UC Riverside	2017
Attended	European Autumn School in Topology, Netherlands	
	Topology Festival, Cornell University	
	Georgia International Topology Conference, University of Georgia	
	Alpine Algebraic & Applied Topology Conference, Switzerland	2016
	WCATSS, University of Oregon, Eugene	
	GSTSC, Indiana University, Bloomington	
	Mid-Atlantic Topology Conference, Johns Hopkins University	
	Midwest Topology Seminar, Northwestern University	
	Geometry and Topology Conference, Lehigh University	2015
	Mid-Atlantic Topology Conference, University of Virginia	
	Midwest Topology Seminar, University of Illinois Chicago	
	Midwest Topology Seminar, Northwestern University	
	Modular invariants in Topology and Analysis, Regensburg	
	WCATSS on Field theories, UBC	
	Introductory Workshop on Algebraic Topology, MSRI	
	Joint Mathematical Meetings, Baltimore	
	Classification of Manifolds, NEHU	2013
	H-principle, Chennai Mathematical Institute	2012
	Groups and geometries, ISI, Bangalore	
	String Topology, Vivekananda University	
	Kervaire Invariant One, ISI, Kolkata	
	Number Theory workshop, Tezpur University	2011
	Lie algebras and their representations, CMI	
	Nurture camp, Institute of Mathematical Sciences	2007
Pre-College	*IMO bronze medal*, Slovenia, highest scorer from India	2006
	273 rank at Indian Institutes of Technology (IITs)	2006
	Elegant solution award at IMO training camp	
	Cleared national astronomy and regional physics and chemistry olympiads	
	Cleared national mathematics olympiad in the ninth grade	2003
	National Talent Search Examination, (NTSE) scholarship	
	Kishore Vaigyanik Protsahan Yojana, (KVPY) scholarship	
Other	*Web Design*,	
Interests	I've designed and maintain a blog on Github using Hugo, SASS, JQuery	
	Expository Math Writing	
	I have dozens of notes from various courses, conferences, and research available freely on my website	