Curriculum Vitae

Apurva Nakade

1. General information

Name	Apurva Nakade
Current occupation	Fourth Year Graduate, Mathematics
Institution	Johns Hopkins University
Email	anakade1@math.jhu.edu
Website	`www.math.jhu.edu/~anakade1`

2. Teaching experience

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

Instructor at JHU	H2G2 Algebraic Topology Intersession 2017, Calculus 2 Summer 2016, Differential Equations Summer 2015, Online Linear Algebra Summer 2014.
TA at JHU	Calculus 1 Fall 2013, Fall 2016 (Head TA), Calculus 2 Fall 2014, Calculus 3 Spring 2015, Spring 2016, Hon. Linear Algebra Spring 2014, 2016, Hon. Multivariable Calculus Spring 2015.
TA at CMI	Compact Riemann Surfaces, Advanced Algebra.

3. Academic Record

B.Tech.	Computer Science	IIT Kanpur	2010
M.Sc.	Mathematics	CMI	2012

4. Workshops and Conferences attended

- Alpine Algebraic & Applied Topology Conference, Switzerland - August, 2016
- WCATSS, University of Oregon, Eugene - August, 2016
- GSTSC, Indiana University, Bloomington - April, 2016
- Mid-Atlantic Topology Conference, Johns Hopkins University - March, 2016
- Midwest Topology Seminar, Northwestern University - February, 2016
- Geometry and Topology Conference, Lehigh University - May 2015

- Mid-Atlantic Topology Conference, University of Virginia - April 2015
- Midwest Topology Seminar, University of Illinois Chicago - February, 2015
- Midwest Topology Seminar, Northwestern University - October, 2014
- Modular invariants in Topology and Analysis, Regensburg - September, 2014
- WCATSS on Field theories, UBC - July, 2014
- Introductory Workshop on Algebraic Topology, MSRI - January, 2014
- Joint Mathematical Meetings, Baltimore - January 2014
- Classification of Manifolds, NEHU - 2013
- H-principle, Chennai Mathematical Institute - 2012
- Groups and geometries, ISI, Bangalore - Winter of 2012
- String Topology, Vivekananda University - 2012
- Kervaire Invariant One, ISI, Kolkata - Summer of 2012
- Number Theory workshop, Tezpur University - Winter of 2011
- Lie algebras and their representations, CMI - Summer of 2011
- Nurture camp, Institute of Mathematical Sciences - Summer of 2007

5. Project work

Relevant materials can be found at `www.math.jhu.edu/~anakade1`

5.1. Goodwillie Calculus and Real Embeddings. Advisor: Nitu Kitchloo
Goodwillie calculus is a method of creating 'polynomial' approximations to functors and studying the original functors using the approximations. In certain cases like the embeddings functor, the original functor can be completely recovered from the approximations. Currently I'm trying to understand what Goodwillie calculus tells us about embeddings with extra structures, specifically totally real embeddings.

5.2. Internship at Vivekananda University. Advisor: Prof. Samik Basu
This was my first introduction to modern algebraic topology during my masters program which involved reading several papers by Adams on K-theory.

5.3. Undergraduate project. Advisor: Prof. Somenath Biswas
We worked on a problem on protein folding. Article can be found at:
- Nakade A.; Biswas S. "Effect of increasing the energy gap between the two lowest energy states on the mixing time of the Metropolis algorithm"
  Information Processing Letters, IPL4801 (2012.08.012)

6. Other stuff

6.1. Olympiads.
- IMO 2006 Slovenia, bronze medalist, highest scorer from India
- 2006, elegant solution award at IMO training camp.
- Cleared national astronomy olympiad and regional physics and chemistry olympiad.
- Cleared national mathematics olympiad in the ninth grade.

6.2. Scholarships. Reciepient of
- *National Talent Search Examination* (NTSE) scholarship.
- *Kishore Vaigyanik Protsahan Yojana* (KVPY) scholarship.

6.3. Other achievements.
- 273 rank at Indian Institutes of Technology (IITs).
- 2009, Selected for ACM ICPC Kanpur regionals