

# Anandam Banerjee

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CONTACT INFORMATION	Centre for Mathematics and its Applications, Mathematical Sciences Institute Australian National University Canberra, ACT 0200, Australia	<i>Phone:</i> +61 2 6125 8357 <i>Fax:</i> +61 2 6125 5549 <i>E-mail:</i> anandam.banerjee@anu.edu.au
NATIONALITY	Indian	
RESEARCH INTERESTS	Algebraic Geometry, Algebraic $K$ -Theory, specifically, categories of motives.	
WORK	Postdoctoral Fellow <b>Australian National University</b> July 2010 – present.	
EDUCATION	<b>Northeastern University</b> , Boston, MA USA  Ph.D. , Mathematics, May 2010 <ul style="list-style-type: none"><li>• Thesis Topic: Tensor Structure on Smooth Motives</li><li>• Advisor: Professor Marc Levine</li><li>• Area of Study: Algebraic Geometry</li></ul> M.S., Mathematics, May 2006 <b>Chennai Mathematical Institute</b> , Chennai, India  B.Sc. (Hons.), Mathematical Sciences, August 2004 <ul style="list-style-type: none"><li>• With Honors (major) in Mathematics</li><li>• Minor in Computer Science.</li></ul>	
AWARDS AND HONORS	<ul style="list-style-type: none"><li>• Senior Teaching Assistant, Fall 2009 to Spring 2010.</li><li>• Teaching Assistant, Fall 2004 to Spring 2009.</li><li>• Visiting student, Universität Duisburg-Essen, Essen, Germany, May–June, 2007.</li><li>• Visiting student, École Normale Supérieure, Paris, May–June, 2004 as a part of CMI-ÉNS Exchange Program.</li><li>• Received award for original work as an undergraduate, Chennai Mathematical Institute, 2004.</li><li>• Received scholarship from National Board of Higher Mathematics, India and tuition waiver for undergraduate studies from 2001 to 2004.</li><li>• Qualified in the <i>Indian National Mathematical Olympiad</i> in 2000 and attended the <i>International Mathematical Olympiad Training Camp</i> in the summers of 2000 and 2001.</li></ul>	
TEACHING EXPERIENCE	<b>Australian National University</b> , Canberra, ACT, Australia <ul style="list-style-type: none"><li>• Supervision of Honour's thesis (undergraduate thesis for 4<sup>th</sup>-year Math majors) on "Computing Syzygies", February – November, 2011</li><li>• Reading course on "Basic Algebraic Geometry", Second semester (July – November), 2011</li></ul>	

- A part (3 weeks) of the course on “Algebraic Number Theory” for Mathematics majors, September 2011
- A part (1 month) of the course Algebra and Calculus Methods MATH1003, May 2011

**Northeastern University**, Boston, MA USA

*Primary Instructor: Duties include designing course syllabi, lecturing and leading class discussions, writing and grading quizzes and exams, and holding office hours.*

- MATH 1241 Calculus 1 (2 sections), Fall 2009
- MATH U131 Calculus 1 for Business and Economics, Spring 2009 and Fall 2008.

*Joint Instructor: Duties include lecturing and leading class discussions, group-grading quizzes and exams, and holding office hours.*

- MATH U115 Introduction to Mathematical Thinking, Spring 2008 and Fall 2007.
- MATH U115 Applications of Algebra, Spring 2007 and Fall 2006

*Recitation Instructor: Duties include leading recitation sessions, grading quizzes and exams and holding office hours.*

- MATH U343 Differential Equations and Linear Algebra, Spring 2006, Fall 2005 and Spring 2005.
- MATH U341 Calculus 3 for engineers, Fall 2004

PUBLICATIONS  
AND PREPRINTS

- A. Banerjee, “Tensor functor from Smooth Motives to Motives over a base”, preprint available at <http://arxiv.org/abs/1111.3718>, November 2011.
- A. Banerjee, “Tensor Structures on Smooth Motives”, to appear in the Journal of K-Theory (published online in May 2011), preprint available at <http://arxiv.org/abs/1004.1491>, July 2010.
- L. Babai, A. Banerjee, R. Kulkarni, V. Naik, “Evasiveness and distribution of primes”, Proceedings of Symposium on Theoretical Aspects of Computer Science (STACS) 2010, pages 71–82.
- A. Banerjee, “Polynomials satisfied by square matrices: A converse to the Cayley-Hamilton Theorem”, *Resonance*, November 2002, Vol. 7, No. 2.

PRESENTATIONS  
AND TALKS

- “Tensor Structure on Smooth Motives”, September 2010, Mathematical Sciences Institute, Australian National University, Algebra and Topology Seminar.
- “Tensor Structure on Smooth Motives”, June 2010, Chennai Mathematical Institute.
- “Tensor Structure on Smooth Motives”, February 2010, Ohio State University, Algebraic Geometry Seminar.
- “Mixed Tate Motives”, June 2008, Northeastern University, TAPAS Seminar.
- “An Introduction to Hodge Structures”, October 2007, Northeastern University, Graduate students’ seminar.
- “Zero-cycles on Hypersurfaces of Low Degree”, August 2006, Chennai Mathematical Institute.
- “Hypersurfaces of Low Degree”, May 2006, Northeastern University, TAPAS Seminar.
- “Eisenstein series and Dirichlet L-functions”, Séminaire “Exposés des étudiants du CMI”, June 2004, École Normale Supérieure, Paris.

PROFESSIONAL  
MEMBERSHIP

**American Mathematical Society**, Member, September 2004 – April 2010.

TECHNICAL  
SKILLS

Programming: C, C++, Pascal, Perl, Java, UNIX shell scripting, Haskell

Applications: T<sub>E</sub>X, L<sup>A</sup>T<sub>E</sub>X, B<sub>I</sub>B<sub>T</sub>E<sub>X</sub>, Microsoft Office, Gimp and other common productivity packages for Windows, OS X, and Linux platforms

LANGUAGES  
SPOKEN

English, Hindi, Bengali (fluently)

French (reading and writing)

HOBBIES AND  
INTERESTS

Photography, both digital and film.

Playing an Indian classical percussion instrument called '*Tabla*'.

REFERENCES

Marc Levine, Universität Duisburg-Essen, [marc.levine@uni-due.de](mailto:marc.levine@uni-due.de),

Bryan Wang, Australian National University, [bai-ling.wang@anu.edu.au](mailto:bai-ling.wang@anu.edu.au) (Teaching).