Barinder Singh Banwait

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http://www.warwick.ac.uk/~mariaz

Personal Date and Place of Birth: 24/11/1986, Perivale, UK

Nationality: British

Algebraic Number Theory, Elliptic Curves, Diophantine Equations, Rational Points on Research

Interests Varieties.

EDUCATION University of Warwick, UK

Jan 2010 - Present

Ph.D., Mathematics, Expected: Autumn 2013

• Thesis Title: On some local-to-global phenomena for abelian varieties

• Advisor: Professor John Cremona

University of Cambridge, UK

Oct 2005 - Jun 2009

M.Math., Mathematics (Part III), June 2009, Distinction

B.A., Mathematics, June 2008, Class II, Division I

PAPERS

1. "Tetrahedral Elliptic Curves and the local-to-global principle for isogenies" with J. Cremona. Preprint, arXiV: 1306.6818, June 2013.

INVITED TALKS

Tetrahedral Elliptic Curves and the local-to-global principle for isogenies, Warwick Number Theory Seminar, Jun 2013

Tetrahedral and Octahedral Elliptic Curves, WaNDS Number Theory Seminar, Durham University, May 2013 (WaNDS stands for Warwick, Nottingham, Durham, Sheffield)

Tetrahedral Elliptic Curves and the local-to-global principle for isogenies, Heilbronn Seminar, University of Bristol, April 2013

On some local-to-global phenomena for abelian varieties, British Mathematical Colloquium, Number Theory Track, University of Sheffield, March 2013

On some local-to-global phenomena for abelian varieties, Number Theory Seminar, University of Cambridge, February 2013

Tetrahedral Elliptic Curves, WaNDS Number Theory Seminar, Nottingham University, May 2012 (WaNDS stands for Warwick, Nottingham, Durham, Sheffield)

TEACHING EXPERIENCE Supervisor, University of Warwick

A supervisor is assigned groups of 5 students. The supervisor marks the assignments of his/her students, meets the students twice a week for one hour each, and discusses the assignments and other material on the courses which the students are studying.

- First Year Supervisor Oct 2012 – Apr 2013 Courses supervised: Analysis, Abstract and Linear Algebra, Differential Equations, Geometry and Motion
- Oct 2010 Jun 2011• Second Year Supervisor Courses supervised: Complex Analysis, Rings and Modules, Geometry, PDEs

Teaching Assistant, University of Warwick

A teaching assistant holds a support class on the course for an hour each week, in which the assignment questions are discussed, as well as other questions the students may have. The assistant is also required to mark the assignment questions submitted by the students.

• Modular Forms Oct – Dec 2012

Lecturer: Mehmet Haluk Sengun

• Algebraic Number Theory Jan – Mar 2012

Lecturer: Johan Bosman

• Elliptic Curves Oct – Dec 2011

Lecturer: Lassina Dembélé

• Algebraic Number Theory Jan – Mar 2010

Lecturer: William Hart

Instructor, Linyi University, Linyi, Shandong, China

• Algebraic Number Theory

 $\mathrm{Jul}\ 2009$

A summer school for the second year undergraduates at Linyi University was organised in 2009. Various students from Cambridge each organised an 8-hour lecture course of their choice, and held problems sessions on their courses each day for the two-week duration of the school.

STEP Mentor, University of Cambridge, UK

A STEP mentor is assigned a group of 10 A-level students holding a prospective offer to study Mathematics at Cambridge University. The mentor's role is to prepare the students for the STEP entrance examination, by organising classes and lessons on the STEP questions, and generally helping the students mathematically. This all takes place during a week in April each year. I was a STEP mentor in 2007, 2008 and 2009.

AWARDS Engineering and Physical Sciences Research Council (EPSRC)

Jan, 2010

Full funding for Ph.D. studies

Nuffield Trust July, 2007

Undergraduate Research Bursary, to conduct a summer research project

Supervisor: Dr. Jon Bevan, University of Surrey

LANGUAGES English: Native

German: Fluent Punjabi: Fluent

Referees Professor John Cremona

Mathematics Institute, University of Warwick

Coventry CV4 7AL, UK J.E.Cremona@warwick.ac.uk

Dr. Tim Dokchitser

Department of Mathematics, University Walk

Bristol BS8 1TW, UK tim.dokchitser@bristol.ac.uk

Professor John Coates

DPMMS, Centre for Mathematical Sciences

Wilberforce Road, Cambridge CB3 0WB, UK J.H.Coates@dpmms.cam.ac.uk

Professor Samir Siksek Mathematics Institute, University of Warwick Coventry CV4 7AL, UK S.Siksek@warwick.ac.uk