

Bartosz Naskręcki

PERSONAL DATA

Date of Birth: 11 May 1986
Place of Birth: Poznań, Poland
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Address: University Walk, Howard House
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Collegium Mathematicum, Building B
Umultowska 87, 61-614 Poznań
Nationality: Polish

EMPLOYMENT

since Mar 2016	Research Associate at University of Bristol
since Oct 2014	Assistant professor at Adam Mickiewicz University
2014–2016	Postdoctoral research fellow at Universität Bayreuth

EDUCATION

2010–2014	Ph. D. student at Adam Mickiewicz University (AMU) , Faculty of Mathematics and Computer Science (Scholarship Funded by EU)
Jun 2010	M. Sc., Faculty of Mathematics and Computer Science, AMU
2005–2010	M. Sc. Programme in Mathematics at AMU
2002–2005	VIII Secondary School in Poznań, mathematical and computer science profile

RESEARCH EXPERIENCE

2013–2015	National Science Centre research grant PRELUDIUM " <i>Formy modularne i rangi krzywych eliptycznych.</i> ", 2012/05/N/ST1/02871
2010–2014	<i>Ranks in families of elliptic curves and modular forms</i> , Ph.D. Thesis Advisor: Professor Wojciech Gajda
2009–2010	<i>On a certain diophantine equation</i> , M.Sc. Thesis Advisor: Professor Wojciech Gajda

PUBLICATIONS

1. *Divisibility sequences of polynomials and heights estimates*, [New York J. Math.](#) 22 (2016) 989–1020.
2. *Distribution of Mordell-Weil ranks of families of elliptic curves*, [Banach Center Publications](#) 108 (2016), 201–229.
3. *On higher congruences between cusp forms and Eisenstein series*, in volume [Computations with Modular Forms](#), Springer, Contributions in Mathematical and Computational Sciences, 6 (2014) 257–277.
4. *Mordell-Weil ranks of families of elliptic curves associated to Pythagorean triples*, [Acta Arithmetica](#), 160, No. 2 (2013), 159–183.
5. *Infinite family of elliptic curves of rank at least 4*, [Involve](#), 3, No. 3 (2010), 297–316.

- Preprints
6. *The generalized Fermat equation with exponents 2, 3, n* (with Nuno Freitas and Michael Stoll), preprint, 34 pp.
 7. *Mordell-Weil ranks of families of elliptic curves parametrized by binary quadratic forms*, submitted, 21 pp.
 8. *On higher congruences between cusp forms and Eisenstein series II*, preprint, 17 pp.

PRIZES AND AWARDS

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| 2014 | <i>Young Mathematicians Prize of Polish Mathematical Society</i> |
| 2013 | Scholarship of <i>Adam Mickiewicz University Foundation</i> |
| 2010 | <i>J. Marcinkiewicz Award for the Outstanding Undergraduate Mathematical Paper (Distinction)</i> |
| 2010 | Medal for Outstanding Graduates "Sapere Aude", Adam Mickiewicz University |
| 2009 | Scholarship of Kulczyk Family Fund, Adam Mickiewicz University |
| 2009 | Ministry of Science and Higher Education Award (scholarship) for scientific achievements |
| 2008 | <i>Honourable Mention</i> , International Mathematics Competition , Blagoevgrad, Bulgaria |
| 2008 | Ministry of Science and Higher Education Award (scholarship) for scientific achievements |
| 2007 | <i>Third Prize</i> , International Mathematics Competition , Blagoevgrad, Bulgaria |
| 2007 | Ministry of Science and Higher Education Award (scholarship) for scientific achievements |

SELECTED TALKS

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| Oct 2016 | <i>Generalized Fermat's equation of type (2,3,n)</i> , Linfoot seminar, University of Bristol, UK |
| Nov 2015 | <i>Zeta functions, Weil conjectures and how to apply them</i> , Workshop on Modern Applied Mathematics PK 2015, Kraków, Poland |
| Oct 2015 | <i>Generalized Fermat equations $x^2+y^3=zp$ – a progress report</i> , Jahrestagung SPP 1489, Osnabrück, Germany |
| Sept 2014 | <i>Mordell-Weil ranks in families of elliptic curves parametrized by binary quadratic forms</i> , DMV-PTM Joint Meeting, Poznań, Poland |
| Jun 2014 | <i>Mordell-Weil ranks in families of elliptic curves parametrized by binary quadratic forms</i> , ALANT 2014, Będlewo, Poland |
| Jul 2013 | <i>Mordell-Weil ranks of families of elliptic curves associated to Pythagorean triples</i> , Journées Arithmétiques 2013, Grenoble, France |
| Jun 2013 | <i>On higher congruences between cusp forms and Eisenstein series</i> , Workshop on Galois representations modulo prime powers, Luxembourg |
| May 2013 | <i>Mordell-Weil ranks of families of elliptic curves associated to Pythagorean triples</i> , Heilbronn seminar, Bristol, UK |
| Mar 2013 | <i>On higher congruences between cusp forms and Eisenstein series</i> , "Explicit Methods for Modular Forms", Warwick, UK |
| Jun 2012 | <i>Mordell-Weil ranks of families of elliptic curves associated to Pythagorean triples</i> , Algebraic and Arithmetic Geometry, Kraków, Poland |
| Jul 2011 | <i>Sphere packings and codes</i> , 14th International Workshop for Young Mathematicians "Algebra", Kraków, Poland |
| Sep 2010 | <i>A computer can do more than the mathematician?</i> , 13th International Workshop for Young Mathematicians "Logic and Foundations of Mathematics", Kraków, Poland |
| Nov 2009 | <i>Infinite family of elliptic curves</i> , Workshop on Ranks, Faculty of Mathematics and Computer Science, AMU, Poznań |
| Sep 2009 | <i>Enchained in Markov Chains</i> , 12th International Workshop for Young Mathematicians "Probability Theory and Statistics", Kraków, Poland |
| Sep 2008 | <i>Elliptic curves cryptography</i> , 11th International Workshop for Young Mathematicians "Number Theory", Kraków, Poland |

WORKSHOPS AND CONFERENCES

Sep 2016	Recent Developments on Elliptic Curves , Oxford, UK
Jun 2016	Arithmetic statistics and the Cohen-Lenstra heuristics Warwick, UK
May 2016	LMFDB Workshop , San Jose, California, USA
Apr 2016	Explicit Methods in Number Theory: Conference in Honour of John Cremona's 60th Birthday , Warwick, UK
Mar 2016	British Mathematical Colloquium , Bristol, UK
Nov 2015	Workshop on Modern Applied Mathematics PK 2015 , Kraków, Poland
Nov 2014	Workshop on Galois representations , Luxembourg
Sept 2014	DMV-PTM Joint Meeting , Poznań, Poland
Jun 2014	Alant 2014 , Będlewo, Poland
Oct 2013	Kosmos Summer School: MZV in Mathematics and Physics , Berlin, Germany
Jul 2013	Sage Days: Algorithms in Arithmetic Geometry , Leiden, Netherlands
Jul 2013	Journées Arithmétiques 2013 , Grenoble, France
Jun 2013	Workshop on Galois representations modulo prime powers , Luxembourg
Mar 2013	Explicit Methods for Modular Forms , Warwick, UK
Jun 2012	6th European Congress of Mathematics , Kraków, Poland
Feb 2012	Winter School on Galois Theory , University of Luxembourg, Luxembourg
Aug 2011	Summer School and Conference "Computations with Modular Forms 2011" , University of Heidelberg, Heidelberg, Germany
Jun 2011	Abelian Varieties & Galois Actions , Adam Mickiewicz University, Poznań, Poland
Mar 2011	Spring School on higher dimensional class field theory , University of Mainz, Mainz, Germany
Mar 2011	School and Conference on Modular Forms and Mock Modular Forms and their Applications in Arithmetic, Geometry and Physics , ICTP, Trieste, Italy
Feb 2011	MSRI Arithmetic Statistics: Introductory Workshop , MSRI, Berkeley, California, USA
Jan 2011	MSRI Arithmetic Statistics: Connections for Women , MSRI, Berkeley, California, USA
Jun 2010	Advanced Courses on Modularity , Universitat Autònoma de Barcelona, Barcelona, Spain
Feb 2010	Advanced Course on Arithmetic Geometry for Function Fields of Positive Characteristic , Universitat Autònoma de Barcelona, Barcelona, Spain
Oct 2009	Advanced Course on Shimura Varieties and L-functions , Universitat Autònoma de Barcelona, Barcelona, Spain
Jun 2009	Clay Institute Summer School 2009 "Galois representations" , Honolulu, Hawaii, USA

EXPERIENCE

2016–	Contributions to L-functions Modular Forms Database project, mod ℓ modular forms section (joint work with Samuele Anni and Anna Medvedovsky).
2008	Coauthor of interactive presentation module for Calculus courses (Computer Science programme) created in Mathematica system: Module 1 (pl), Module 2 (pl)
Wolfram Demonstration Project applets:	<ol style="list-style-type: none">1. Motion of a Simple Pendulum with Damping from The Wolfram Demonstrations Project2. Work in an Attractive Inverse-Square Field from The Wolfram Demonstrations Project

3. *Driven Damped Oscillator with Resonance Effect*
from The Wolfram Demonstrations Project

4. *Numerical Integration using Rectangles, the Trapezoidal Rule, or Simpson's Rule*
from The Wolfram Demonstrations Project

TEACHING EXPERIENCE

Teaching at University of Bristol:

Fall/Winter | *Maths Single Honours Tutorial* (Analysis and Foundations and Proof)
2016–2017

Teaching at Adam Mickiewicz University:

Fall/Winter | *Computer assisted mathematics*, Exercise classes, undergraduate course
2014–2015

Fall/Winter | *Introduction to algebra and number theory*, Exercise classes, undergraduate course
2014–2015

Fall/Winter | *Introduction to mathematics*, Exercise classes, undergraduate course
2014–2015

Fall/Winter | *Linear algebra*, Exercise classes, undergraduate course
2011–2012

Fall/Winter | *Galois theory*, Exercise classes, undergraduate course
2011–2012