

Curriculum vitae

Personal information

Name/Surname: Piotr Przytycki

Date of birth: 26.04.81

Nationality: Polish

Occupation: Assistant Professor (2008 – 2015) at the Institute of Mathematics of the Polish Academy of Sciences, Śniadeckich 8, 00–956 Warsaw, Poland

Webpage: <http://www.mimuw.edu.pl/~pprzytyc/>

Education

1999 – 2004 – undergraduate and advanced undergraduate courses in pure mathematics at the Faculty of Mathematics, Informatics and Mechanics, Warsaw University, Poland.

2004 – Master of Sciences (second cycle degree) in Mathematics at the Faculty of Mathematics, Informatics and Mechanics, Warsaw University, Poland; Diploma Honorificum.

2004 – 2008 – graduate (PhD) course in pure mathematics at the Faculty of Mathematics, Informatics and Mechanics, Warsaw University, Poland (up to 2006) and at the Institute of Mathematics of the Polish Academy of Sciences, Wrocław Department, Poland (from 2006).

2005 – Marie Curie Fellowship at the Control Training Site in SISSA, Trieste, Italy.

2008 – PhD in Mathematics (with honours) at the Institute of Mathematics of the Polish Academy of Sciences.

2008 – month stay at IHES, France.

2008 – 2,5 month stay at MPI, Bonn.

2009 – 2,5 month stay at Institut de Mathematiques de Toulouse.

2009 – 3,5 month stay at HIM, Bonn.

2010 – 2 month stay at ESI, Vienna.

2011 – year long stay at University of Illinois at Urbana-Champaign

Selected awards

1998 – Honorable Mention, XXXIX International Mathematical Olympiad in Taipei, Taiwan.

2000 – Second Prize, 7th International Mathematical Competition for University Students in London, UK.

2001 – Honorable Mention, 8th International Mathematical Competition for University Students in Prague, Czech republic.

2002 – First Prize, 9th International Mathematical Competition for University Students in Warsaw, Poland.

2004 – First Prize (ex aequo with Wojciech Kryński), Marcinkiewicz Competition for the best undergraduate paper in Poland (for *Hamiltonowskie podejście do niezmienników i krzywizny*) organized by the Polish Mathematical Society.

2001 – 2004 – Scholarship of the Ministry of Education.

2008 – 2009 – *Start* fellowship (for young researchers) from the Foundation for Polish Science.

2008 – Waclawek Foundation award for PhD thesis.

2009 – Nominated to *The International Stefan Banach Prize for a Doctoral Dissertation in the Mathematical Sciences*.

2009 – Polish Mathematical Society award for young mathematicians.

2009 – Prime Minister award for PhD thesis.

2009 – *Kolumb* fellowship (for the stay at UI at Urbana–Champaign in 2011) from the Foundation for Polish Science.

2011 – *Kuratowski* award for mathematicians under 30 from Polish Mathematical Society and Polish Academy of Sciences.

2011 – *Mobilność* fellowship for a stay at the University of Orsay in 2013/2014 from Ministry of Science and Higher Education.

Grants

2007 – 2008 MNiSW grant promotorski N201 003 32/0070, Własności kompleksów i grup systolicznych, executive.

2007 – 2010 MNiSW grant N201 012 32/0718, *Geometryczna teoria grup i topologia kontaktowa*, executive.

2010 – 2013 MNiSW grant N N201 541738, *Geometryczna teoria grup i topologia kontaktowa II*, executive.

Advisor

Jacek Świątkowski, Mathematical Institute of the University of Wrocław.

Students

Marcin Kotowski, Michał Kotowski (master's program at Warsaw University), graduated 2011.

International schools and workshops attended

2002 – Control Theory, Będlewo, Poland.

2003 – Navier Stokes Equations and Turbulence, Martina Franca, Italy.

2005 – Ricci Flow, Three-Manifolds and Geometry, Berkeley, USA.

2006 – Geometric Group Theory, Montreal, Canada.

2006 – International Congress of Mathematicians, Madrid, Spain.

2007 – Automorphisms of free groups, Outer Space, Teichmüller theory; Aspects of hyperbolicity, convergence groups, Marseille, France.

2007 – Homogeneous Flows, Moduli Spaces and Arithmetic, Pisa, Italy.

2007 – Low Dimensional Geometry and Topology, Warwick, UK.

2007 – First joint international meeting AMS–PTM, Warsaw, Poland.

2007 – Topics in Geometric Group Theory, Topics in Teichmüller Theory and Kleinian Groups, Berkeley, USA.

2008 – Congress in the memory of Adrien Douady, Paris, France.

2008 – Conference on Algebraic and Geometric Topology, Gdańsk, Poland.

2008 – Random Groups and Random Graphs, Będlewo, Poland.

2008 – 4th William Rowan Hamilton Geometry and Topology Workshop, Dublin, Ireland.

2008 – The Isoperimetric Inequality for $SL(n, \mathbb{Z})$, Palo Alto, USA.

2008 – Legendrian and transverse knots, Palo Alto, USA.

2008 – Karlsruher Weihnachtsworkshop zur Geometrie und Zahlentheorie, Germany.

2009 – Georgia International Topology Conference, Athens, USA.

2009 – Geometric Group Theory Davis 60, Będlewo, Poland.

2009 – Dynamics and geometry in Teichmüller space, Marseille, France.

2009 – Rigidity in cohomology, K-theory, geometry and ergodic theory, Bonn, Germany.

2009 – Workshop on fundamental group and hyperbolic geometry, Toulouse, France.

2010 – CAT(0) Spaces and Affine Buildings, Sde Boker, Israel.

2010 – Non-positive Curvature and Geometric Structures in Group Theory, Oberwolfach, Germany.

2010 – Subgroups of mapping class groups, Bonn, Germany.

2010 – Group Actions in Topology and Geometric Group Theory, Poznań, Poland.

2010 – Geometric group theory, Marseille, France.

2010 – 6th William Rowan Hamilton Geometry and Topology Workshop, Dublin, Ireland.

2011 – The Fifth Ahlfors-Bers Colloquium, Houston, Texas.

2011 – a series of conferences on geometric group theory, Columbus, Ohio.

2011 – Arithmetic Groups vs. Mapping Class Groups, Oberwolfach, Germany.

2011 – Geometric group theory, Haifa, Israel.

2011 – 3-manifolds, Artin groups and cubical geometry, New York City.

Mathematical interests

Geometric group theory, topology and geometry of manifolds:

Simplicial nonpositive curvature;

Gromov boundaries of word-hyperbolic groups;

Coxeter groups;

Hyperbolic geometry.

Languages

Polish – mother tongue;

English – proficient user, Certificate of Advanced English 2001;

German – basic user, Mittelstufe 2001;

French – beginner;

Russian – beginner.

Teaching experience

Recitation classes

Differential geometry I, Warsaw University 2004;

Mathematics with statistics for geographers, Warsaw University 2004;

Dynamical systems, Warsaw University 2006;
Control theory, Warsaw University 2006;
Algebraic topology II, Wrocław University 2006;
Characteristic classes, Wrocław University 2007.

Seminars

Seminar for whom math is their passion, Warsaw University 2004 – 2005;
Complex dynamics, Wrocław University 2007;
On the complex of curves, IMPAN, Warsaw, 2007 – 2008;
Geometric group theory: the classics, IMPAN, Warsaw, 2007 – 2008.
Geometric group theory, IMPAN, Warsaw, 2010.

Lecture courses

Kleinian groups, Wrocław University 2007.
Geometric Group Theory, Warsaw University 2010.

Other

Workshops at the interdisciplinary scientific camp in Świder, organized by the Polish Children's Fund 2003 – 2010.

Conference organizing

Main organizer of “Young Geometric Group Theory Meeting”, an international conference at Banach Center 2012.

Refereeing

Communications in Algebra, Journal of Pure and Applied Algebra, Mathematical Reviews, Random Structures and Algorithms, Topology and its Applications, Transactions AMS.

List of publications

1. Systolic groups with no flats are hyperbolic, *Fundamenta Mathematicae* 193 (2007), 277-283.
2. Gaussian thermostats as geodesic flows of nonsymmetric linear connections, joint with Maciej Wojtkowski, *Communications in Mathematical Physics* 277 no.3 (2008), 759-769.
3. The fixed point theorem for simplicial nonpositive curvature, *Mathematical Proceedings of the Cambridge Philosophical Society* 144 (2008), 683-695.
4. Flag-square triangulations and Gromov boundaries in dimension 3, joint with Jacek Świątkowski, *Groups, Geometry, and Dynamics* 3 (2009), 453-468.
5. EG for systolic groups, *Commentarii Mathematici Helvetici* 84 no.1 (2009), 159-169.
6. Boundaries of systolic groups, joint with Damian Osajda, *Geometry & Topology* 13 (2009), 2807-2880.
7. Veech groups of Loch Ness monsters (2009), joint with Gabriela Schmithüsen and Ferran Valdez, to appear in *Annales de l'Institut Fourier*.
8. Acute triangulations of polyhedra and \mathbb{R}^n , joint with Eryk Kopczyński and Igor Pak, to appear in *Combinatorica*, extended abstract in *Proceedings of the 2010 annual symposium on computational geometry*.
9. Random groups do not split, joint with Francois Dahmani and Vincent Guirardel, *Mathematische Annalen* 349 no.3 (2011), 657-673.
10. Twist-rigid Coxeter groups, joint with Pierre-Emmanuel Caprace, *Geometry & Topology* 14 (2010), 2243-2275
11. The ending lamination space of the five-punctured sphere is the Noebeling curve, joint with Sebastian Hensel, *Journal LMS* 84 no.1 (2011) 103-119.
12. Contractibility of the Kakimizu complex and symmetric Seifert surfaces (2010), joint with Jennifer Schultens, to appear in *Transactions AMS*.
13. Bipolar Coxeter groups, joint with Pierre-Emmanuel Caprace (2010), to appear in *Journal of Algebra*.

Preprints

14. Square complexes and simplicial nonpositive curvature, joint with Tomasz Elsner (2011), submitted.
15. Graph manifolds with boundary are virtually special, joint with Daniel Wise (2011), preprint.