

Curriculum Vitae

Personal information

Name: Krzysztof Krupiński

Date and place of birth: 15 May 1976, Wrocław, Poland

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Employment

2005- : Assistant Professor at the University of Wrocław

2005-2008: Visiting Assistant Professor (postdoc) at the University of Illinois at Urbana-Champaign

2004-2005: Assistant Professor (postdoc) in the Polish Academy of Sciences

University Education

2004: Ph.D. degree in mathematics

2000-2004: Graduate studies in mathematics at the University of Wrocław

2000: Master of Science in theoretical mathematics

1995-2000: Undergraduate studies in theoretical mathematics at the University of Wrocław

Awards and Scholarships

2007: G. Białkowski Award for the best Ph.D. thesis in mathematics defended in Poland in years 2004-2006 awarded by the 'Towarzystwo Popierania i Krzewienia Nauk' (the society supporting Polish science) and the Foundation for Polish Science

2006: K. Kuratowski Award for young mathematicians awarded by the Polish Mathematical Society and the Institute of Mathematics of the Polish Academy of Sciences

2005: Polish Education Minister's Award for Ph.D. thesis

2005: Scholarship of the Foundation for Polish Science for the best young scientists

2004: Ph.D. dissertation formally recognized as excellent

2004: Stanisław Saks Scholarship for the best Ph.D. students awarded by the Wrocław Mathematicians' Foundation

2003: Scholarship of the Institute of Mathematics of the Polish Academy of Sciences for distinguished Ph.D. students

2003: Grant from KBN (the Polish Government Committee for Scientific Research) for research on Ph.D. thesis for the project "Profinite structures interpretable in fields"

2000: Third prize in the J. Marcinkiewicz Competition for the best Master's thesis in Mathematics

1997-2000: Education Minister's scholarships for outstanding achievements in mathematical studies

1996: Scholarship of the Wrocław Mathematicians' Foundation

1995: "Primus Inter Pares Award" for special achievements in high school

1995: Silver medal in the competition for high school students for the best mathematical paper organized by the Polish mathematical journal "Delta"

1995: Laureate in the 18th Austrian-Polish Mathematical Competition in Vienna

1994: Bronze medal in the 35th International Mathematical Olympiad in Hong-Kong

1994, 1995: Education Minister's scholarships for outstanding achievements in mathematics at school

1993-1995: Awards in the XLIV, XLV and XLVI Polish Mathematical Olympiad

1992-1995: Scholarship of the Polish Children's Found

1991: First award in the Mathematical Competition for primary schools

Theses

Profinite structures with various model theoretic properties: Ph.D. thesis, 2004.

Properties of minimal fields: Master's thesis, 2000.

Publications

1. *Generalizations of small profinite structures*, submitted.
2. *Fields interpretable in supersoluble groups with NIP (the non-solvable case)*, Journal of Symbolic Logic, accepted.
3. *Some model theory of Polish structures*, Transactions of the American Mathematical Society, accepted.
4. *Fields interpretable in rosoluble theories*, Israel Journal of Mathematics, to appear.
5. *Supersoluble dependent groups having finitely satisfiable generics* (with C. Ealy and A. Pillay), Annals of Pure and Applied Logic (151), 1-21, 2008.
6. *Small profinite groups and rings* (with F. Wagner), Journal of Algebra 306, 494-506, 2006.
7. *Profinite structures interpretable in fields*, Annals of Pure and Applied Logic 142, 19-54, 2006.
8. *A special thin type* (with T. Blossier), Illinois Journal of Mathematics 49, 281-290, 2005.
9. *Abelian profinite groups*, Fundamenta Mathematicae 185, 41-59, 2005.
10. *Products of finite abelian groups as profinite groups*, Journal of Algebra 288, 556-582, 2005.
11. *On bounded type-definable equivalence relations* (with L. Newelski), Notre Dame Journal of Formal Logic 43, 231-242, 2002.

Work in progress

1. *Stable fields of finite weight* (collaboration with A. Pillay).
2. *Minimal and quasi-minimal groups and fields*.
3. *Model theory of small Polish structures*.
4. *Rosoluble groups and fields with NIP* (collaboration with C. Ealy and A. Pillay).
5. *Borel cardinality of the relation of being in the same Lascar strong type* (collaboration with A. Pillay and S. Solecki).
6. *Small profinite groups and rings* (collaboration with F. Wagner).
7. *Small compact G -groups* (collaboration with F. Wagner).

Conferences and others

a) Invited talks/participations: Conference "Model Theory" (Bedlewo, 2009): 30 minute talk, Conference "Logicum Urbanae Lugduni" (Lyon, 2009): one-hour talk, Conference "Stability Theoretic Methods in Unstable Theories" (Banff, 2009), Logic Colloquium 2008 (Bern, 2008): 45 minute talk during special session in model theory, Conference "Around Classification Theory" (Leeds, 2008): one-hour talk, Logic Colloquium talk at UCLA (Los Angeles, 2008), Workshop "Model Theory and Groups" (Oberwolfach, 2007): 30 minute talk, ASL Annual Meeting (Montreal, 2006): a talk during special session in model theory.

b) Conferences with a contributed talk: Logic Colloquium 2005 (Athens), Logic Colloquium 2004 (Torino), Logic Colloquium 2003 (Helsinki), Conference "Groups and Group Rings" (Wisła 2003), Logic Colloquium 2002 (Muenster), Workshop "Simple Theories" (Marseille 2002), Logic Colloquium 2001 (Vienna).

c) Conferences without a talk: Workshop "Model Theory in Wrocław" (Wrocław, 2009), Final MODNET Conference (Barcelona, 2008), Model Theory Midwest Meeting (Chicago, 2008), Conference "Logic and Mathematics" (Urbana 2008), Logic Colloquium 2007 (Wrocław), Model Theory Midwest Meeting (Columbus 2005), Conference "Model Theory, Algebraic and Analytic Geometry" (Cambridge 2005), Conference "Pure Model Theory" (Norwich 2005), Conference "An Introduction to Recent Applications of Model Theory" (Cambridge 2005), Conference "Algebra and Discrete Mathematics" (Hattingen 2003), "Arizona Winter School" (Tucson 2003) with participation in the project "Model Theory and Diophantine Geometry", Conference "Model Theory and Its Applications" (Ravello 2002), Workshop on Model Theory (Barcelona 2001), Workshop on Model Theory and Tits Buildings (Wuerzburg 2000), Logic Colloquium 2000 (Paris).

d) Longer visits with one or more lectures in seminars

2009: One-week visit at the University of Leeds with one lecture and scientific cooperation with A. Pillay.

2008: Two-week visit at the Université Lyon 1 with one lecture and scientific cooperation with F. Wagner.

2008: Five-day visit at the Università degli Studi di Torino with one lecture and scientific collaboration with D. Zambella and R. Camerlo.

2008: Three-day visit at the University of Maryland at Collage Park with one lecture.

2008: One-week visit at the University of Leeds with one lecture and scientific cooperation with A. Pillay.

2007: One-week visit at the University of California at Berkeley with two lectures.

2004: Two-month visit at the Université Lyon 1 with one lecture and scientific cooperation with F. Wagner and T. Blossier.

2003: One-month visit at the University of Illinois at Urbana-Champaign with two lectures in Urbana and one lecture at the University of Illinois at Chicago.

e) One day visits with a lecture in seminars

2007: University of Illinois at Chicago.

2006: University of Illinois at Chicago, University of Notre Dame, McMaster University.

2005: University of Wisconsin at Madison.

Interests

I am interested in both pure model theory and its connections with topology and algebra, especially with field theory and group theory. I am mostly experienced in:

a) profinite structures, groups and rings, and, more generally, compact and Polish structures as topological variants of geometric stability theory,

b) stable, simple and rosy theories, in particular stable, simple and rosy groups, topological spaces of hyperimaginary elements, Lascar strong types,

c) model theory of fields, especially ACF, SCF, DCF, and some parts of pure field theory, particularly connected with Galois theory.

Teaching experience

During my graduate studies I taught classes at the University of Wrocław on the following subjects: Introduction to mathematics, Abstract algebra and Linear algebra. I also gave an advanced course entitled "Profinite structures" for graduate and experienced undergraduate students. During my postdoc at UIUC I taught Linear Algebra, Advanced Calculus, Fundamental Mathematics and Mathematical Logic. Last year I taught Linear Algebra and Model Theory of Fields.