

Curriculum Vitae

1 Personal Data

Name: Yurii Daniilovich Khomskii
Date of Birth: 05 September 1980
Place of Birth: Moscow, Russia
Nationality: Dutch and Russian
Family situation: Married, two children
Languages: Fluent in: English, Dutch, German, Russian, Bulgarian
Some knowledge: French, Latin, Hebrew, Japanese



2 Publications

Peer-reviewed:

1. **William of Sherwood, singular propositions and the Hexagon of Opposition**, Jean-Yves Béziau and Gillman Payette (eds.), *New Perspectives on the Square of Opposition*, Peter Lang, Bern, 2010.
2. **A general setting for the pointwise investigation of determinacy**, Proceedings of the Third Indian Conference on Logic and Applications, (Eds.) R. Ramanujam and Sundar Sarukkai, Springer LNAI 5378, 2009. pp 187–197.
3. (with Jörg Brendle) **Polarized partitions on the second level of the projective hierarchy**, *Annals of Pure and Applied Logic* 163, 2012. pp 1345–1357. (DOI: 10.1016/j.apal.2012.03.003.)
4. (with Jörg Brendle) **Mad families constructed from perfect a.d. families**, *Journal of Symbolic Logic* 78 (4), 2014. pp. 1164-1180. (DOI: 10.2178/jsl.7804070).
5. **Projective Hausdorff gaps**, *Archive for Mathematical Logic* 53:1-2, 2014. pp 57-64. (DOI: 10.1007/s00153-013-0355-6).
6. (with Vera Fischer and Sy Friedman) **Co-analytic mad families and projective wellorders**, *Archive for Mathematical Logic* 52:7-8, 2013, pp 809-822. (DOI: 10.1007/s00153-013-0345-8).
7. (with Vera Fischer and Sy Friedman) **Cichoń’s diagram, regularity properties and Δ_3^1 sets of reals**, *Archive for Mathematical Logic* 53:5–6, 2014, pp 695-729.
8. (with Vera Fischer and Sy Friedman) **Measure, category and projective well-orders**, *Journal of Logic and Analysis* 6, Paper 8 (2014) (25 pp).
9. (with Sy Friedman and Vadim Kulikov) **Regularity properties on the generalized reals**, *Annals of Pure and Applied Logic* 167, 2016, pp 408–430.
10. (with Giorgio Laguzzi, Benedikt Löwe and Ilya Sharankou) **Questions on Generalised Baire Spaces**, *Mathematical Logic Quarterly* 62:4-5, August 2016, pp 439-456.
11. (with Giorgio Laguzzi) **Full-splitting Miller trees and infinitely often equal reals**, *Annals of Pure and Applied Logic*, to appear (preprint available at www.logic.univie.ac.at/~ykhomski/).
12. (with Barnabas Farkas and Zoltán Vidyánszki) **Almost disjoint refinements and mixing reals**, *Fundamenta Mathematicae*, to appear (arXiv:1510.05699 [math.LO]).

13. (with Jörg Brendle and Wolfgang Wohofsky) **Cofinalities of Marczewski ideals**, Colloquium Mathematicum, to appear (arXiv:1611.08143 [math.LO]).
14. **Filter-Laver measurability**, Topology and its Applications, to appear (arXiv:1204.5198 [math.LO]).

In preparation/in-progress:

15. (with Jörg Brendle), **Projective Maximal Independent Families**.
16. (with Rachid Atmai and Sy Friedman) **Regularity Properties from Large Cardinals**.
17. **Eventually different trees**.
18. (with Sy Friedman, Giorgio Laguzzi, Marlene Koelbing and Wolfgang Wohofsky) **Uncountable levels of paradise**.

Dissertation:

16. **Regularity properties and definability in the real number continuum**, PhD Thesis, University of Amsterdam, 2012. ILLC Dissertation Series DS-2012-04.

3 Education

- 1992–1999 International School, Maartens College, Groningen
 Included internationally acknowledged programmes:
 - International General Certificate of Secondary Education (IGCSE)
 - International Baccalaureate (IB), 1997-1999
- 1999–2002 Mathematics, University of Groningen (switched to Leiden)
- 1999–2001 Computer Science, University of Groningen (incomplete)
 “Propaedeuse” (2000)
- 1999–2003 Piano performance: Conservatorium Groningen.
 Bachelor’s Degree “Uitvoerend Musicus” (18 June 2003)
- 2002–2005 Mathematics, University of Leiden.
 Bachelor’s Degree (18 April 2005)
 Bachelor Thesis: “Banach Algebras” (Supervisor: Dr. Marcel de Jeu)
- 2005–2007 Master of Logic, University of Amsterdam
 Master of Science Degree, Cum Laude (14 August 2007)
 Master Thesis: “Regularity Properties and Determinacy”
 (Supervisor: Dr. Benedikt Löwe)
- 2007–2012 PhD student at the Institute of Logic, Language and Computation (ILLC)
 University of Amsterdam
 Supervisor: Benedikt Löwe
 Co-supervisor: Jörg Brendle (Kobe Univesity, Japan)
 Mosaic grant, given by the Netherlands Organization for Scientific Research (NWO)

4 Work experience

1. September 2007 – February 2012: PhD at the Institute of Logic, Language and Computation (ILLC), University of Amsterdam.
2. September 2011 – January 2012: Lecturer at the Amsterdam University College (AUC).
3. February 2012 – February 2015: postdoctoral researcher at the Kurt Gödel Research Center for Mathematical Logic (KGRC), University of Vienna.
4. February 2015 – February 2017: postdoctoral researcher (“Wissenschaftlicher Mitarbeiter”) at the University of Hamburg, Germany.
5. March 2017 – February 2019: Marie Skłodowska-Curie fellow at the university of Hamburg, Germany.

5 Teaching experience

1. At the **University of Amsterdam**:
 - Fall 2007: Teaching assistant, *Recursion Theory* (Master of Logic).
 - Spring 2008: Teaching assistant, *Axiomatic Set Theory* (Master of Logic and Bachelor of Mathematics).
 - Spring 2008: Teaching assistant, *Intuitionistic Logic* (Master of Logic).
 - Fall 2008: Lecturer (joint with Brian Semmes), *Capita Selecta: Set Theory, Model Theory* (Master of Logic and Master of Mathematics).
 - Spring 2011: Teaching assistant, *Set Theory* (“MasterMath” (Dutch national mathematics Master programme)).
 - Spring 2011: Teaching assistant, *Intuitionistic Logic* (Master of Logic).
 - Fall 2011: Teaching assistant, *Introduction to Modal Logic* (Master of Logic and Bachelor of Mathematics).
2. At the **Amsterdam University College**:
 - Fall 2011: Lecturer, *Logic, Information Flow and Argumentation* (Liberal Arts Bachelor)
3. At the **KGRC, University of Vienna**:
 - Fall 2013: Lecture/reading course, *advanced topics in Set Theory* (Mathematics MSc).
4. At the **University of Hamburg**:
 - Spring 2015: Exercise classes, Mathematik für Informatiker (CS Bachelor).
 - Fall 2015: Exercise classes, Mathematik für Informatiker (CS Bachelor).
 - Fall 2015: Exercise classes, Stochastik für Lehramt (LAPSI).
 - Spring 2016: Lecture *Advanced Set Theory*, (Mathematics Master).
 - Fall 2016: Exercise classes, Analysis I (Mathematics Bachelor)
5. **Intensive course/invited lecture series**:

- July 2010: Lecturer of intensive course, *Infinite Games*, Sofia University, Bulgaria (part of *Erasmus teachers' exchange programme*, invitation by prof. Alexandra Soskova).
 - June 2013: Invited lecturer on game theory at the HIM programme *Stochastic Dynamics in Economics and Finance*, Bonn, Germany (invitation by prof. Igor Evstigneev).
 - June 2017: Topics in Set Theory, Master of Logic project, ILLC, Amsterdam.
6. **Student supervision:** I was partially involved in the supervision of Rogier Jacobsz (MSc thesis, UvA), Adam Lesnikowski (reading project, UvA), Sourav Tarafder (PhD student, exchange in UvA) and Tabea Beese (MSc student, U Hamburg).
 7. **Committee service:** I served on the MSc thesis committee of Tanmay Inamdar (MSc Logic, 10 August 2013), Hugo Nobrega (MSc Logic, 10 August 2013), Apostolos Tzimoulis (MSc Logic, 10 August 2013), Julia Ilin (MSc Logic, 28 February 2014), Alexander Block (MSc Logic, 28 February 2014) and Lorenzo Galeotti (MSc Logic, 21 July 2015).

6 Grants and Distinctions

- Mosaic Award 2007: A grant for a four-year period of doctoral research, given by the Netherlands Organisation for Scientific Research (NWO), aimed at stimulating the participation of ethnic minorities in academic research.
- Marie Skłodowska-Curie fellowship at the university of Hamburg, Germany (1 March 2017 - 28 February 2019).

7 Selected invited talks

1. 4th European Set Theory Conference, 15–18 July 2013.
2. International Conference on Topology and Geometry, joint with the 6th Japan-Mexico Topology Symposium (JAMEX 6), 2–6 September 2013.
3. 1st Pan Pacific International Conference on Topology and Applications, Min Nan Normal University in Zhangzhou, China, 25–30 November 2015.
4. 6th Young Set Theory 2016, Copenhagen, Denmark, 13–17 June 2016.
5. Bonn Set Theory workshop: Generalized Baire Spaces, 21–22 September 2016.
6. Arctic Set Theory workshop 3, Kilpisjärvi, Finland, 25–30 January 2017.
7. The 15th Asian Logic Conference, Daejeon, Korea, 10–14 July 2017.
8. “The Logic of Infinity”, Amsterdam University College, Guest Lecture, 13 April 2017.

8 Organisational and community service

I have organized two workshops and a bi-weekly seminar series at the University of Amsterdam, and served on a PhD hiring committee. I have served on numerous Master thesis committees, and have done referee work for numerous journals, including the *J. Symb. Logic*, the *Arch. Math. Logic*, the *Math. Logic Quarterly*, and other paper collections and conference proceedings. I was co-organiser of the Set Theory Workshop at the “annual meeting of the Deutsche Mathematiker-Vereinigung (DMV)” in Hamburg, 2015. I was co-organiser of the large international conference “Colloquium Logicum 2016” (a bi-annual meeting of the German mathematical logic society DVMLG).