

# MICHAŁ MARCINKOWSKI

## Personal Information

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*Born in Wrocław, Poland. 17 November 1987.*

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*website* <http://www.math.uni.wroc.pl/~marcinkow>.

## Research interests

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Geometry and Topology

## Academic appointments

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- ★ Ass. Prof. at the University of Wrocław, 12.2020 -
- ★ Ass. Prof. at the Polish Academy of Science, Poland 12.2018 - 12.2020
- ★ Postdoc at the Ben Gurion University, Israel 02-05.2017
- ★ SFB Postdoc at the University of Regensburg, Germany 09.2015-12.2018  
(suspended for 02-05.2017)

## Participation in grants

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- ★ PI in NCN (Polish National Science Center) grant Sonatina,  
12.2018-12.2021
- ★ Investigator in NCN grant 2012/06/A/ST1/00259,  
PI: T. Januszkiewicz. 06.2013-12.2016
- ★ Investigator in FNP (Polish Science Foundation) grant "Mistrz",  
PI: T. Januszkiewicz. 01.2013-12.2015

## Short term research positions

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- ★ University of Warsaw. spring semester 2014
- ★ Southampton University. 09-12.2012
- ★ University of Warsaw. spring semester 2011

## Research visits

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- ★ University of Chicago. 6 months (1-6.2020)
- ★ Technical Univeristy in Dresden. 1 month (11.2019)
- ★ Ben Gurion University. 2 weeks (13-25.10.2019)
- ★ Technion. 1 week (18-25.12.2018)
- ★ Ben Gurion University. 1 week (8-12.04.2018)
- ★ University of Florida. 1 week (14-18.11.2016)
- ★ Texas A&M. 2 weeks (31.10-11.11.2016)
- ★ Oberwolfach RIP with M. Brandenbursky. 1 week (12-18.07.2015)

★ Aberdeen University.

1 week (17-24.06.2013)

## Education

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PhD studies at the Faculty of Mathematics, Wrocław. 2011-2015

Msc studies at the Faculty of Mathematics, Wrocław. 2006-2011

PhD thesis: Gromov positive scalar curvature conjecture  
and macroscopically small homologically large manifolds.

Advisor: Światosław R. Gal.

Co-advisor: Piotr W. Nowak.

## Papers and preprints

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★ The Schwarz-Milnor lemma for braids and area-preserving diffeomorphisms with M. Brandenbursky and E. Shelukhin, submitted.

★ A short proof that the  $L^p$ -diameter of  $Diff_0(S, area)$  is infinite. submitted.

★ Qualitative counting closed geodesics.  
with B. Karlhofer, J. Kędra, A. Trost, *Geometriae Dedicata* **213** (2021)

★ Bounded cohomology of transformation groups.  
with M. Brandenbursky, *Mathematische Annalen* (2021).

★ Aut-invariant word norm on right angled Artin and Coxeter groups.  
*Michigan Journal of Mathematics*, **69** (2020), no. 2.

★ Entropy and quasimorphisms.  
with M. Brandenbursky, *Journal of Modern Dynamics*, **15** (2019).

★ Aut-invariant norms and quasimorphisms on surface and free groups.  
with M. Brandenbursky, *Commentarii Mathematici Helvetici*, **94** (2019), no. 4.

★ Bughelea conjecture and asymptotic dimension of groups.  
with A. Engel, *Journal of Topology and Analysis*, **12** (2020), no. 2.

★ The Gromov PSC conjecture and homologically small macroscopically large manifolds.  
*Journal of Topology* **9** (2016), no. 1.

★ Cancellation norm and the geometry of biinvariant word metrics.  
with M. Brandenbursky, Ś.R.Gal, J. Kędra. *Glasgow Math. J.* **1** (2016), no. 58.

★ Aperiodic tilings of manifolds of intermediate growth.  
with Piotr W. Nowak. *Geometry, Groups and Dynamics* **8** (2014), no. 2.

## Talks in conferences

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★ Bounded cohomology of transformation groups.  
- *Cohomological methods (part of the Simons semester)*, Warsaw, 8-12.04.2019,  
- *Workshop on Bounded Cohomology*, Heidelberg, 29.07-02.08.2019,  
- *Virtual workshop: Simplicial Volumes and Bounded Cohomology*, 21-25.09.2020.

★ Entropy and quasimorphisms.  
- *UMI-SIMAI-PTM - Joint meeting*, Wrocław, 17-20.09.2018,  
- *GAGTA*, Seoul, 15-20.07.2018,  
- *Annual meeting of the Deutsche Mathematiker-Vereinigung*, Paderborn, 05-09.03.2018,  
- *Dynamics of (semi-)groups actions*, Łódź, 9-12.07.2019,  
- *Jubilee Congress for the 100th anniversary of the Polish Mathematical Society* Kraków, 3-7.09.2019.

- ★ Examples of topologically large but homologically small manifolds.  
*Annual Meeting of the Israeli Mathematical Union, Dead sea, 02-05.06.2016.*
- ★ Macroscopically large rationally inessential manifolds.  
*Conference of Geometric Group Theory, Wrocław 05-06.2015.*
- ★ The Gromov PSC conjecture and homologically small macroscopically large manifolds.  
*Analysis, Geometry and Topology of PSC Metrics workshop in Oberwolfach, 07.2014.*

## Awards

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2016: Minister of Science and Higher Education of Poland Award.  
 2009/2010, 2010/2011: Scholarship of the Polish Ministry of Education.  
 2006: 2nd Prize, European Union Contest for Young Scientists, Stockholm.  
 2005: 1st Prize, International Mathematical Olympiad Baltic Way, Stockholm.  
 2004: Laureate of LVI Polish Mathematical Olympiad.

## Organized conferences

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- ★ "Constructing Aspherical Manifolds and Complexes"  
with A. Engel, Frauenchiemsee 09.2018.
- ★ "Groups and spaces of non-positive curvature"  
with A. Engel, Regensburg 08.2017.
- ★ "Large Scale Dimensions"  
with A. Engel, Regensburg 07.2016.

## Other activities

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- ★ I co-organised several summer and winter schools of mathematics for students.
- ★ I am a member of a Polish Mathematical Olympiad regional committee (Wrocław).

October 21, 2021