

JAKUB TAKÁČ

University of Warwick, United Kingdom
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EDUCATION

Ph.D. study, Mathematics

Mathematics Institute, University of Warwick, United Kingdom

Supervisor: David Bate

Field of interest: *Geometric measure theory*

2021 - present

Master study, Mathematical Analysis

Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic

Master thesis: *Interpolation of logarithmically convex combinations of operators*

2019 - 2021

Bachelor study, Mathematics

Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic

Bachelor thesis: *Optimality of function spaces for integral operators*; see [3]

2016 - 2019

PUBLICATIONS AND PREPRINTS

[1] D. Bate and J. Takáč, *Typical Lipschitz maps on rectifiable metric spaces*; Journal für die reine und angewandte Mathematik (Crelles Journal), 2024

[2] V. Musil and L. Pick and J. Takáč, *Optimality problems in Orlicz spaces*; Adv. Math. (2023), 432: Paper No. 109273, 58

[3] J. Takáč, *Optimality of function spaces for kernel integral operators*; Math. Nachr. (2023), 1-25.

WORK IN PROGRESS

[4] G. Alberti and D. Bate and A. Marchese and J. Takáč, *Typical Lipschitz images of spaces admitting d -dimensional tangent fields*; Work in progress, 2024

AWARDS

Second place in the competition SVOČ in Mathematics and Computer Science held in Brno for project titled *Optimality of function spaces for integral operators*

2019

Dean's prize for the best Bachelor thesis in the academic year 2018/2019 in mathematics (Charles University in Prague, Faculty of Mathematics and Physics) for the thesis *Optimality of function spaces for integral operators*

2019

Second place (no first place awarded) in the competition SVOČ in Mathematics and Computer Science held in Prague for project titled *Interpolation of logarithmically convex combinations of operators*

2021

Dean's prize for the best Master thesis in the academic year 2020/2021 in mathematics (Charles University in Prague, Faculty of Mathematics and Physics) for the thesis *Interpolation of logarithmically convex combinations of operators*

2021

Awarded the Red Diploma (i.e. graduated with exceptional grades) for my Master study (see above)

2021

SCHOLARSHIPS AND GRANTS

Scholarship for excellent study results	<i>2016/2017</i>
Scholarship for excellent study results	<i>2019/2020</i>
GAUK (Grant agency of the Charles university) number 327321 (principal investigator)	<i>2021</i>

TEACHING EXPERIENCE

Teaching Assistant, Measure Theory, University of Warwick	<i>winter 2023/2024</i>
Teaching Assistant, Norms, Metrics and Topologies, University of Warwick	<i>spring 2022/2023</i>
Teaching Assistant, Measure Theory, University of Warwick	<i>winter 2022/2023</i>
Teaching Assistant, Mathematical Analysis 1, Faculty of Mathematics and Physics, Charles University	<i>winter 2020/2021</i>
Teaching Assistant, Mathematics 2, Faculty of Social Sciences, Charles University Awarded the "Zlatý kurz" (=golden course) prize	<i>summer 2019/2020</i>
Teaching Assistant, Mathematics 1, Faculty of Social Sciences, Charles University Awarded the "Zlatý kurz" (=golden course) prize	<i>winter 2019/2020</i>

INVITED TALKS

Analysis seminar, University of Trento, Trento, Italy	<i>May 2024</i>
Function spaces seminar, Charles University, Prague, Czech Republic	<i>December 2022</i>
Geometric Analysis and Calculus of Variations (GeoCa 22), Lysečiny, Czech Republic	<i>December 2022</i>
Workshop on geometric measure theory and analysis on metric spaces, University of Warwick, United Kingdom	<i>August 2022</i>

PARTICIPATION AT CONFERENCES AND WORKSHOPS

Geometric and variational analysis in memory of Jan Malý, Będlewo, Poland	<i>2024</i>
International Workshop "GeoCa" (Geometric Analysis and Calculus of Variations), Lysečiny, Czech Republic	<i>2023</i>
Jyväskylä summer school 2023 (lectures by David Bate and Xavier Tolsa), Jyväskylä, Finland	<i>2023</i>
Geometry and analysis of groups and manifolds, Pisa, Italy	<i>2023</i>
Function Spaces and Applications XII, Spring School on Analysis, Paseky nad Jizerou, Czech Republic	<i>2023</i>
NAFSA 12 (Nonlinear Analysis, Function Spaces, Applications), Prague, Czech Republic	<i>2022</i>
International Workshop on "Geometric measure theory and Harmonic analysis", Hausdorff center for mathematics, Bonn, Germany	<i>2022</i>
International Conference "LUBOŠ60", Železná Ruda, Czech Republic	<i>2021</i>
International Workshop "Per Partes", Lysečiny, Czech Republic	<i>2021</i>
International Workshop "GeoCa" (Geometric Analysis and Calculus of Variations), Lysečiny, Czech Republic	<i>2020</i>
International Conference "QIND60" (Qualitative Improvement and New Dimensions), Špindleruv Mlýn, Czech Republic	<i>2020</i>
Sommerschule "Analysis und Theoretische Numerik", Siegmundsburg, Germany	<i>2020</i>
Seminar "Function Spaces and PDEs", Mała Ciche, Poland	<i>2019</i>
Sommerschule "Analysis und Theoretische Numerik", Siegmundsburg, Germany	<i>2019</i>

