

# ACADEMIC TEACHER PROFESSIONAL EXPERIENCE DOCTORAL SCHOOL OF WROCŁAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

## 1. Basic information

Name, surname:	Tomasz Grzywny
Grade / Title:	Dr hab. inż.
Scientific discipline	matematyka / mathematics
Faculty:	W13 Wydział Matematyki / Faculty of Pure and Applied Mathematics
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Link to home page and/or research profiles (Google Scholar, ResearchGate, etc.)	https://www.researchgate.net/profile/Tomasz- Grzywny

# 2. Publication record

*Up to 10 most important papers published over the period of previous 10 years.* 

No.	Description (authors, publication title, journal / conference, DOI)	Publication vear
1.	Krzysztof Bogdan, Tomasz Grzywny, Michał Ryznar, Density and tails of unimodal convolution semigroups, Journal of Functional Analysis http://dx.doi.org/10.1016/j.jfa.2014.01.007	2014
2.	Tomasz Grzywny, On Harnack Inequality and Hölder Regularity for Isotropic Unimodal Lévy Processes, Potential Analysis http://dx.doi.org/10.1007/s11118-013-9360-y	2014
3.	Krzysztof Bogdan, Tomasz Grzywny, Michał Ryznar, Barriers, exit time and survival probability for unimodal Lévy processes, Probability Theory and Related Fields http://dx.doi.org/10.1007/s00440-014-0568-6	2015
4.	Wojciech Cygan, Tomasz Grzywny, Bartosz Trojan, Asymptotic behavior of densities of unimodal convolution semigroups, TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY http://dx.doi.org/10.1090/tran/6830	2017
5.	Krzysztof Bogdan, Tomasz Grzywny, Tomasz Jakubowski, Dominika Pilarczyk, Fractional Laplacian with Hardy potential, Communications in Partial Differential Equations https://doi.org/10.1080/03605302.2018.1539102	2019
6.	Tomasz Grzywny, Karol Szczypkowski, Heat kernels of non-symmetric Lévy- type operators, J. Differential Equations https://doi.org/10.1016/j.jde.2019.06.013	2019
7.	Tomasz Grzywny, Karol Szczypkowski, Lévy processes: Concentration function and heat kernel bounds, Bernoulli https://doi.org/10.3150/20-BEJ1220	2020
8.	Krzysztof Bogdan, Tomasz Grzywny, Katarzyna Pietruska Pałuba, Artur Rutkowski, Extension and trace for nonlocal operators, Journal de Mathématiques Pures et Appliquées https://doi.org/10.1016/j.matpur.2019.09.005	2020



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9.	Tomasz Grzywny, Łukasz Leżaj, Bartosz Trojan, Transition densities of subordinators of positive order, Journal of the Institute Mathematics of Jussieu	
10.	https://doi.org/10.1017/S1474748021000360 10. Krzysztof Bogdan, Tomasz Grzywny, Katarzyna Pietruska Pałuba, Artur Rutkowski, Nonlinear nonlocal Douglas identity, Calculus of Variations and Partial Differential Equations https://doi.org/10.1007/s00526-023-02458-x	

# 3. Projects and grants

*List of the most important 5 projects/grants with basic description including: title, source(s) of funding, name of the call, role in the project (e.g., principal investigator).* 

1.	Role in the project (e.g., principal investigator, work package leader, etc.)	Principal investigator
	Project title	Geometric quantities related to nonlocal equations
	Sources of funding	National Science Center
	Name of the call	OPUS
	Implementation period	2020 -2024
2.	Role in the project (e.g., principal investigator,	Investigator
	work package leader, etc.)	Developed and an experimentary from an intelligence in the second state of the
	Project title	Regularity and asymptotics for multidimensional Markovian evolutions
	Sources of funding	National Science Center
	Name of the call	OPUS
	Implementation period	2018-2023
3.	Role in the project (e.g.,	Principal investigator
	principal investigator,	
	work package leader, etc.)	
	Project title	Heat kernels: construction and estimates
	Sources of funding	National Science Center
	Name of the call	OPUS
	Implementation period	2017-2021
4.	Role in the project (e.g.,	Investigator
	principal investigator,	
	work package leader, etc.)	
	Project title	Levy and Markov processes on Euclidean and hyperbolic spaces
	Sources of funding	National Science Center
	Name of the call	OPUS
	Implementation period	2016-2019
5.	Role in the project (e.g.,	Investigator
	principal investigator,	
	work package leader, etc.)	
1	Project title	Analysis of nonlocal operators
	Sources of funding	National Science Center
1	Name of the call	Harmonia
	Implementation period	2015-2018



## 4. International experience

Brief description of international cooperation and experience (e.g., research stays, cooperation with foreign entities, coordination or participation in international projects or programmes, keynote speeches and presentations delivered at renowned international conferences, visiting professor stays, invited lectures).

No.	Description	Year(s)
1.	Stay in University of Angers (5 months)	2005-2006
2.	Stay in TU Dresden (18 months), Alexander von Humboldt fellowship	2011-2013
3.	Stay in University of Bielefeld (6 months), Alexander von Humboldt	2013 and 2020
	fellowship and 3 months more	

#### 5. Experience in teaching doctoral students

Brief description of experience in teaching doctoral students (e.g., courses in doctoral schools and PhD studies, summer/winter schools for doctoral students, tutorials, trainings, etc.).

No.	Description	Year(s)
1.	Course: Analiza stochastyczna (Stochastic Analysis)	2018
2.		
3.		

#### 6. List of supervised doctoral students

*List of all supervised doctoral students that defended the PhD including: name of the student, dissertation title, year of awarding PhD.* 

No.	Name, surname	Dissertation title	Year of
			awarding PhD
1.	Łukasz Leżaj	Non-symmetric Levy processes on the real	2021
		line	
2.			
3.			

#### 7. Prizes and awards

The most important national and international prizes and awards related to research, development and teaching activities.

No.	Description	Year	
1.	Award of the Institute of Mathematics of the Polish Academy of Sciences for	2022	
	outstanding scientific achievement		
2.	Wacław Sierpiński Award (Polish Academy of Science)	2021	
3.	Alexander von Humboldt Fellowship	2011	

## 8. Other significant achievements

Information on other significant achievements related to research, development and teaching activities.



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