

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

#### 1. Basic information

Name, surname:	Łukasz Płociniczak
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://prac.im.pwr.edu.pl/~plociniczak/

## 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
		year
1.	Error of the Galerkin scheme for a semilinear subdiffusion equation with	2023
	time-dependent coefficients and nonsmooth data	
2.	Numerical scheme for Erdélyi–Kober fractional diffusion equation using	2023
	Galerkin–Hermite method	
3.	A linear Galerkin numerical method for a quasilinear subdiffusion equation	2022
4.	Numerical method for a time-fractional porous medium equation	2022
5.	Approximation of the Erdelyi-Kober fractional operator with application to	2014
	the time-fractional porous medium equation	
6.	Analytical studies of a time-fractional porous medium equation. Derivation,	2015
	approximation and applications	
7.	Asymptotic analysis of internal relaxation-oscillations in a conceptual	2020
	climate model	
8.	Hopf bifurcation in a conceptual climate model with ice-albedo and	2020
	precipitation-temperature feedbacks,	
9.	Hopf bifurcation in a conceptual climate model with ice-albedo and	2020
	precipitation-temperature feedbacks,	
10.	Solution and asymptotic analysis of a boundary value problem in the spring-	2020
	mass model of running	

# 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.,	PI
	principal investigator,	
	work package leader, etc.)	
	Project title	Metody numeryczne dla nielokalnych i nieliniowych równań
		parabolicznych



Wrocław University of Science and Technology Doctoral School

Name of the call         Sonata Bis           Implementation period         2018-2026           2.         Role in the project (e.g., principal investigator, work package leader, etc.)         PI           Project title         Nieliniowe równanie dyfuzji anomalnej. Istnienie, jednoznacznoś asymptotyka oraz metody numeryczne           Sources of funding         NCN           Name of the call         Sonata           Implementation period         2016-2018           3.         Role in the project (e.g., principal investigator, work package leader, etc.)         Project title           Project title         Problemy odwrotne w nieliniowym zagadnieniu brzegowym           Sources of funding         NCN           Name of the call         Preludium           Implementation period         2013-2015           4.         Role in the project (e.g., principal investigator, work package leader, etc.)         Project title           Project title         Sources of funding         NCN           Name of the call         Implementation period         2013-2015           4.         Role in the project (e.g., principal investigator, work package leader, etc.)         Project title         Sources of funding           Name of the call         Implementation period         Sources of funding         Sources of funding           Sources of fundi			
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Project title       Sources of funding       Name of the call		principal investigator,	
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Name of the call		Project title	
		Sources of funding	
		Name of the call	
Implementation period		Implementation period	

#### 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.	Cooperation with: Universiad de Malaga, Universidad Autonoma de Madrid, Universidad de Las Palmas de Gran Canaria, Lehigh University, City University of London	2012-2023
2.	Many invited talks at various foreign conferences	
3.	Several invited lectures	

## **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.	Applied Partial Differential Equations	2020, 2022
2.	Recent research trends in mathematics	2021
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.	Mateusz Świtała	Nieliniowe równanie różniczkowe opisujące dynamikę podsiąku kapilarnego	2022
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.	Dionizy Smolenski Prize, PWr	2019
2.	Robert Bartoszyński Award	2018
3.	Outstanding your researcher scholarship, MNiSW	2018-2020

#### 8. Other significant achievements

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