Prospective supervisor's form

Name of the supervisor Piotr Bartłomiejczyk

Academic title: Ph.D., D.Sc.

Orcid ID number: https://orcid.org/0000- 0001-5779-4428

Faculty of Applied Physics and Mathematics

Gdańsk University of Technology **Department of** Differential Equations and Mathematical Applications

Phone: **+48** 58 347-22-79

E-mail: piobartl@pg.edu.pl

Personal web page: https://pg.edu.pl/ piobartl

Discipline[i] mathematics [M] none

Optional

Key words (obligatory four key words describing research interests / expertise):

nonlinear analysis

topological degree

dynamical systems

homotopy theory

Bibliometric indicators

1. Number of journal publications in WoS/ Scopus 18/ 17
2. Citations excluding self-citations WoS 9 Scopus 8
3. Hirsch index WoS 4 Scopus 4

1. The number of PhD students who have graduated under your supervision: 0
2. The number of PhD students currently supervised:
   a. within the current doctoral school 0
   b. within doctoral studies (previous system) 1
3. Are you currently accepting new PhD students:
   a. Polish *Yes/No* Yes
   b. Foreign *Yes/No* Yes

Prospective supervisor's form

Research interests or topics offered for PhD research (no more than 2000 characters)[ii]

My research interests include:
1. nonlinear analysis with special focus on topological degree theory,
2. dynamical systems, especially: Conley index theory and theory of chaos,
3. theory of representations of compact Lie groups,
4. homotopy theory (search for new homotopy invariants),
5. qualitative theory of differential equations (Hamiltonian systems).

Funding or special equipment needed to carry out a PhD project [iii]:

1. Is funding available for experimental work: *Yes/No/not needed* — not needed
2. Is the equipment needed to complete a PhD project available in your lab/department: *Yes/No/not needed* — not needed

Most important publications – no more than 5 published after 1.01.2018

No	Authors/title/journal	Number of points according to the current list of the Ministry of Science and Higher Education	Publication year
1.	Piotr Bartłomiejczyk, Bartosz Kamedulski, Piotr Nowak-Przygodzki, Degree product formula in the case of a finite group action, New York J. Math. 25 (2019)	70	2019
2.	Piotr Bartłomiejczyk, Bartosz Kamedulski, Piotr Nowak-Przygodzki, Topological degree for equivariant gradient perturbations of an unbounded self-adjoint operator in Hilbert space, Topology Appl. 275 (2020) 107037	70	2020

Prospective supervisor's form

3.			
4.			
5.			

Most recent externally funded projects you were involved in – no more than 3

No	Project title, the name of the Principal Investigator (PI) and the institution the project was carried out	Years	Role in the project [iv]
1.			PI
2.			PI
3.			PI

Prospective supervisor's form

Additional relevant information – (no more than 1600 characters)[v]

I was an auxiliary supervisor in one completed doctoral proceeding at Faculty of Mathematics, Physics and Informatics of University of Gdańsk (2014). Currently, I am a supervisor in one PhD proceeding at the same faculty.

[i] You may select up to two disciplines out of 12 disciplines represented in the Doctoral School

[ii] Observe the limit of not more than 2000 characters

[iii] Leave only one answer

[iv] Select the role in the project: PI stands for principal investigator (refers to the holder of an independent grant and the lead researcher for the grant project), Co-I for co-investigator (Co-I assists the principal investigator in the management and leadership of the research project), R for researcher

[v] Add any other relevant information e.g. awards for PhD students whom you supervised (no more than 1600 characters)