

Candidate supervisor's information summary form

maximum 2 pages – it should be a summary of most important achievements

Name and surname, degree, title: PhD, DSc, Konrad Furmańczyk, Associate Professor	
Discipline/ disciplines of science	Information and communication technology
Professional development (degrees and titles) in chronological order	<p>1996 – MSc.- Faculty of Mathematics, Informatics and Mechanics, University of Warsaw</p> <p>2004 – PhD in mathematical sciences, Faculty of Mathematics, Informatics and Mechanics, University of Warsaw</p> <p>2017 – DSc. in mathematical sciences. Faculty of Mathematics, Computer Science and Econometrics University of Zielona Góra</p>
Most important publications/patens over the last 3 years (maximum 10)	<ol style="list-style-type: none"> 1. Furmańczyk, K, Rejchel, W. High-dimensional linear model selection motivated by multiple testing. <i>Statistics</i> (2020), 54(1) s. 152-166 2. Furmańczyk, K, Rejchel, W. Prediction and Variable Selection in High-Dimensional Misspecified Binary Classification. <i>Entropy</i> (2020) 22(5), 543 Special Issue Nonparametric Statistical Inference with An Emphasis on Information-Theoretic Method 3. Furmańczyk K, Estimation of autocovariance matrices for high dimensional linear processes, <i>Metrika</i>, 2021, vol. 84, nr 4, s.595–613. DOI:10.1007/s00184-020-00790-2 4. Furmańczyk K, Dudziński M, Dziewa-Dawidczyk D, Some Proposal of the High Dimensional PU Learning Classification Procedure , <i>Computational Science – ICCS 2021. Lecture Notes In Computer Science</i>, 2021, vol. 12744, Springer, s.18-25, DOI:10.1007/978-3-030-77967-2_2 5. Furmańczyk K, Paczutkowski, K, Dudziński M, Dziewa-Dawidczyk D, Classification methods based on fitting logistic regression to positive and unlabeled data, <i>Computational Science – ICCS 2022. Lecture Notes In Computer Science</i>, 2022, vol. 13350, Springer, s.31-45, DOI:10.1007/978-3-031-08751-6_3

<p>Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order</p>	<p>PhD theses undergoing at IIT SGGW: 2020-2022 auxiliary supervisor in the process of Sylwia Stachowiak, MSc 2020 supervisor in the conduct of Kacper Paczutkowski MSc (Doctoral School of Warsaw University of Life Sciences) 2021 supervisor in the conduct of Robert Wojciechowski MSc (Doctoral School of Warsaw University of Life Sciences)</p>
<p>Project/grants achievements (from the last 10 years)</p>	<p>Since 2008, participation in the goal-oriented project no. 6 PO5 2005 C / 06572 "Implementation of the system of prevention and early detection of allergic diseases in Poland" (ECAP - Epidemiology of Allergic Diseases in Poland), commissioned by the Minister of Health. I was in charge of the task: statistical data analysis in the ECAP study.</p>
<p>Topic – research problem – for which the candidate supervisor seeks a doctoral student</p>	<p>The scope of my research works includes statistical data analysis (biomedical and epidemiological data), methods of mathematical statistics (testing multiple hypotheses, selection of variables in statistical models, classification in a misspecified statistical model, modeling data dependence by domes, graphical models, time series). PU learning. Statistical graphical models. Statistical models for high-dimensional data, medical data analysis. Data mining methods in data analysis applications. Monte Carlo methods in data analysis.</p>
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