

Qualifications of the individual for defining area of expertise

<i>Name/ Birth year</i>	Mateusz Baran / 1989
<i>Title (year degree obtained) / Prof. status</i>	Ph. D. CS (2018) / assistant professor
<i>Address¹</i>	AGH University of Krakow, 30, Mickiewicza Ave. 30-059 Krakow, Poland phone: +48 12 617 46 61 mbaran@agh.edu.pl ResearcherID: AAE-1126-2022 ORCID: 0000-0001-9667-5579
<i>Area of expertise²</i>	Machine learning Analysis of functional biometric data Numerical differential geometry Quality assurance in radiotherapy Medical image analysis
<i>Relevant (best) publications³</i>	1. S. D. Axen, M. Baran, R. Bergmann, and K. Rzecki, "Manifolds.jl: An Extensible Julia Framework for Data Analysis on Manifolds," ACM Trans. Math. Softw., Sep. 2023, doi: 10.1145/3618296. IF = 2.7 2. K. Rzecki and M. Baran, "Application of Elastic Shape Analysis to User Authentication and Identification," IEEE Transactions on Emerging Topics in Computing, pp. 1–1, 2021. IF = 7.691 3. M. Baran et al., "Are gamma passing rate and dose-volume histogram QA metrics correlated?," Med Phys, vol. 48, no. 9, pp. 4743–4753, Sep. 2021. IF = 4.071 4. M. Baran et al., "Isodoses—a set theory-based patient-specific QA measure to compare planned and delivered isodose distributions in photon radiotherapy," Strahlenther Onkol, vol. 198, pp. 849–861, Jun. 2022. IF = 4.033 5. M. Baran, D. Kabat, M. Tulik, K. Rzecki, T. Sośnicki, and Z. Tabor, "Statistical approach to the selection of the tolerances for distance to agreement improves the quality control of the dose delivery in radiotherapy," Phys. Med. Biol., vol. 65, no. 14, p. 145004, Jul. 2020. IF = 3.030 6. M. Baran, "Closest paths in graph drawings under an elastic metric," International Journal of Applied Mathematics and Computer Science, vol. 28, no. 2, pp. 387–397, 2018. IF = 1.504 7. M. Tulik, D. Kabat, M. Baran, R. A. Kycia, and Z. Tabor, "Use of statistical approaches to improve the quality control of the dose delivery in radiotherapy," Phys. Med. Biol., vol. 64, no. 14, p. 145018, 2019. IF = 3.030
<i>Publications statistics:</i>	Google Scholar: Publications: 31, Citations: 215, H-index: 7 Scopus: Publications: 25, Citations: 131, H-index: 5 Web of Science: Publications: 21, Citations: 81, H-index: 5
<i>Other⁴</i>	<i>didactic responsibilities</i> 2013 – 2019, Lecturer at Cracow University of Technology 2019 – to date, Lecturer at AGH-UST <i>major grants</i> Title: BIMLOQ (MNiSW N516 422338)

¹ Organisation, street address, telephone, email, web page

² With keywords characterising your field(-s) of expertise

³ Max. 10

⁴ List didactic, major grants, conference responsibilities, professional recognitions, memberships, journals, patents, etc.

	Period: 2012 Title: Prosecco (PBS1/B3/14/2012) Period: 2013 Title: Fantom do testów eksploatacyjnych urządzeń radioterapeutycznych w teleradioterapii (POIR.04.01.04-00-0014/16) Period: 2018-2019 Title: Reconfigurable detector for measuring the spatial distribution of radiation dose for applications in the preparation of individual patient treatment plans (POIR.04.04.00-00-15E5/18) Period: 2020-2023 <i>reviewer of papers submitted to</i> • Medical Physics (Wiley) • Physics in Medicine and Biology (IOP Publishing) • Journal of Applied Clinical Medical Physics (Wiley) • PLOS ONE • Physica Scripta (IOP Publishing) • Computers & Security (Elsevier) • Advances in Mechanical Engineering (SAGE Publishing) • Electrica • IEEE Transactions on Artificial Intelligence • Machine Learning: Science and Technology (IOP Publishing) • Machine Learning: Health (IOP Publishing) Reviewer for Fulbright STEM Impact Award 2023/24, Fulbright Graduate Student Award 2025/26, Fulbright Senior Award 2025/26.
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