

## PREFACE

The 5<sup>th</sup> Jagiellonian Symposium on Advances in Particle Physics and Medicine was organized by the Jagiellonian University in Kraków, Poland. It took place on 29 June–7 July, 2024 in Collegium Novodvorscianum.

Following the success of four meetings organized in 2015, 2017, 2019 and 2022, this event was a continuation to once again bring together scientists from physics, nuclear medicine and healthcare.

One of the primary objective of the Jagiellonian Symposium was to exchange experience and expertise gained by various institutions in the fields of nuclear and particle physics, medical imaging, radiotherapy and diagnostics. The symposium showcased cutting-edge experimental and theoretical developments, promoting the interplay between outstanding research and innovative concepts at the intersection of basic and applied science.

The scientific scope covered the following fields:

- Total-body PET
- PET imaging innovations
- Novel pharmaceuticals for theranostics
- Extracellular vesicles for theranostics
- Scandium for PET
- Brain-PET innovations
- Artificial intelligence for medicine
- Positronium in medicine
- Positronium in fundamental and material physics
- Particle detection technologies
- Particle therapy monitoring
- Exotic atoms and nuclei, nuclear physics

Conference Proceedings have been published in this issue of *Acta Physica Polonica B Proceedings Supplement* as well as in *Acta Physica Polonica A* and *Bio-Algorithms and Med-Systems*.

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