

Proceedings of the 4th Jagiellonian
Symposium on Advances
in Particle Physics and Medicine

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Preface

The 4th “Jagiellonian Symposium on Advances in Particle Physics and Medicine” was organized by the Jagiellonian University in Kraków, Poland. The conference took place on July 10–15, 2022, in Collegium Maius — the oldest building of the University founded in XIV century, and at the Collegium Novodvorscianum.

Following the success of three meetings organized in 2015, 2017, and 2019, this event was a continuation of bringing together scientists from physics, nuclear medicine, and healthcare.

One of the main purposes 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 was a showcase for the forefront experimental as well as theoretical developments, promoting the interplay between outstanding research and innovative concepts on the borderline between basic and applied science.

The scientific scope covered the following fields:

- Preclinical imaging,
- Clinical imaging,
- Positronium in medicine,
- Total-body PET,
- Positronium in physics,
- Particle detection technologies,
- Particle therapy,
- Exotic atoms and nuclei,
- Radiopharmaceuticals,
- Artificial intelligence for medicine,
- PET imaging innovations.

The conference proceedings have been published in this issue of *Acta Physica Polonica A*, as well as in *Acta Physica Polonica B Proceedings Supplement* ([link](#)) and *Bio-Algorithms and Med-Systems* ([link](#)).

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Guest Editors



Participants of *4th Jagiellonian Symposium on Advances in Particle Physics and Medicine* in Collegium Maius Courtyard



Participants of *4th Jagiellonian Symposium on Advances in Particle Physics and Medicine* in Collegium Novodvorscianum Courtyard