

## PREFACE

Symposium on *New Trends in Nuclear and Medical Physics* was jointly organised by the departments of nuclear, particle and medical physics of the Marian Smoluchowski Institute of Physics of the Jagiellonian University, the oldest university in Poland, founded in 1364. The conference took place on October 18–20, 2023 at the Centre for Theranostics, Kraków, Poland.

The main goal of the symposium was to bring together experts from different fields to exchange experiences in their respective areas of specialization. Especially for young scientists, this was a unique opportunity to participate in cognitive discussions and future perspectives on the new trends in the fields of nuclear technology, medical physics, and radiobiology. The conference featured 22 invited speakers from Austria, Croatia, Czech Republic, Germany, Italy, Japan, the Netherlands, Poland, Ukraine, and the USA.

The scientific scope covered the following fields:

- Preclinical and clinical imaging;
- New developments and innovations in PET imaging;
- Applications with neutrons and protons;
- Positronium as a probe in matter and anti-matter;
- Particle detection technologies, exotic atoms, and nuclei;
- Biological models in radiobiology.

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