

## Ortho-positronium decay –a table-top tool for testing the fundamental physics

*Wednesday, 3 December 2025 16:00 (30 minutes)*

The measurement of gamma-photons originating in ortho-positronium decay allows for testing of several key concepts in fundamental physics at a scale of table-top experiments. Fundamental discrete symmetries and their combinations can be tested by measuring their angular distributions with respect to the spin direction of the ortho-positronium. Azimuthal correlations of Compton scattered photons provide an insight in quantum states of photon polarizations at energies of the order of 100 keV. Overview of experiments at Department of Physics in Zagreb and selected preliminary analysis will be presented.

**Author:** Prof. FRIŠČIĆ, Ivica (Department of Physics, Faculty of Science, University of Zagreb)

**Presenter:** Prof. FRIŠČIĆ, Ivica (Department of Physics, Faculty of Science, University of Zagreb)

**Session Classification:** Exotic atoms: fundamental aspects, applications and advances in radiation detectors