

## Experimental determination of Dalitz Plot for positronium decay using the J-PET detection system

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The Dalitz plot for the three-body decay of positronium has so far been only scarcely investigated. Recent advances in precision studies of positronium decays have been enabled by the Jagiellonian Positron Emission Tomograph (J-PET), which utilizes plastic scintillator strips. In this talk, the first experimental Dalitz plot for the ortho-positronium (o-Ps) annihilation into three photons, determined by the J-PET group, will be presented. Moreover, the possibility of testing quantum electrodynamics (QED) using this approach will be discussed.

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