

## J-PET time calibration

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The Jagiellonian Positron Emission Tomograph (J-PET) project carried out in the Institute of Physics of the Jagiellonian University is focused on construction and tests of the first prototype of PET scanner for medical diagnostic which allows for the 3D imaging of the whole human body using organic scintillators. J-PET prototype consists of 192 scintillator strips forming three cylindrical layers which are optimized for the detection of photons from the electron-positron annihilation with high time- and high angular-resolution.

The poster presents the method of the time calibration and synchronization of the whole detection system based on the measurements performed with a <sup>22</sup>Na radioactive source and a reference detector.

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- [3] J-PET: D. Kamińska et al., *Eur. Phys. J. C* 76, 445 (2016)
- [4] J-PET: P. Moskal et al., *Phys. Med. Biol.* 61, 2025 (2016)
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- [6] J-PET: P. Moskal et al., *Nucl. Instrum. Meth. A* 764, 317 (2014)
- [7] J-PET: J. Smyrski et al., *Nucl. Instrum. Meth. A* 851, 39 (2017)
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