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PET prototype based on scintillation detectors GAGG-SiPM coupled to 32-channel Petiroc2A chip

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We present an early-stage prototype of positron emission tomograph (PET) based on 3x3x20 mm GAGG(Ce) scintillators optically coupled to 3x3 mm SiPMs (Onsemi fc30035-smt). The detectors are read by a Weeroc 32-channel Petiroc2A chip, allowing for precise charge and time measurements and designed specifically for SiPMs readout.
In the report, the energy and time resolutions of the system measured with Ti-44 source are presented, the imaging capabilities of the system are discussed.

Primary author: BOYKO, Nadezhda (National Research Centre "Kurchatov Institute", Moscow, Russia 123182)

Co-authors: Mr KONOTOP, Alexei (National Research Centre "Kurchatov Institute", Moscow, Russia 123182); DUBININ, Filipp (Lebedev Institute of Physics (RAS), NRNU MEPhI); Mr DOLGANOV, Gregory (National Research Centre "Kurchatov Institute", Moscow, Russia 123182); Ms SHALAMOVA, Veronika

Presenter: BOYKO, Nadezhda (National Research Centre "Kurchatov Institute", Moscow, Russia 123182)

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