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[386] A Thin Time-of-flight PET scanner based on fast monolitic silicon pixel detectors

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The goal of the TT-PET project is to develop a compact Time-of-flight PET scanner with 30 ps time resolution, capable to stand high magnetic fields and to be integrated in traditional MRI scanners. The TT-PET scan can achieve its very precise timing thanks to SiGe amplifiers, which are embedded in mono-lithic silicon sensors, which substitute the traditional high density crystals. The scanner will be composed of 16 detection towers arranged in a ring structure. A Tower is composed of 60 modules stacked on top of each other. A general overview of the project and readout DAQ, with its trigger system will be presented.

Author: BANDI, Yves (Universitaet Bern (CH))

Presenter: BANDI, Yves (Universitaet Bern (CH))

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