8th International Workshop on Semiconductor Pixel Detectors for Particles and Imaging.

Contribution ID: **8** Type: **contributed paper**

MuPix7 –a fast monolithic HV-CMOS pixel chip for Mu3e

The MuPix7 chip is a monolithic HV-CMOS pixel chip, thinned down to 50 µm. It provides continuous self-triggered, non-shuttered readout at rates up to 30 Mhits/chip of 3 x 3 mm² active area and a pixel size of 103 x 80 µm². The hit efficiency depends on the chosen working point. Settings with a power consumption of 300 mW/cm² allow for a hit efficiency >99.5%. A time resolution of 11 ns (Gaussian sigma) is achieved. We are going to present the latest results from 2016 test beam campaigns and will cover the roadmap towards the final chip for Mu3e.

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