

Abstract Submitted
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A new pixel sensor concept for Heavy Flavor Tracker in STAR at RHIC XIANGMING SUN, LEO GREINER, MICHAL SZELEZNIAK, HOWARD WIEMAN, Lawrence Berkeley National Laboratory — A new pixel sensor concept is proposed and simulated to improve the performance of the Heavy Flavor Tracker in STAR at RHIC. The new sensor is a multi-wire chamber with silicon readout connected. The new sensor uses the standard CMOS technology to fabricate. It inherits merits from both multi-wire chamber and silicon active pixel sensor. The new sensor can have high position resolution and high signal to noise ratio. It also has high radiation tolerance by removing the sensor diode from silicon. The new sensor also can have fast and flexible on-chip readout.

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