Neutron Irradiation of Silicon Sensors for the Phase 2 Upgrade

Friday, 26 October 2018 13:40 (10 minutes)

Silicon sensors find application in the phase 2 upgrade of the inner and outer tracker and the endcap calorimeter for CMS. In these locations they will be exposed to a high fluence of charged particles and neutrons. We are using the research reactor at the Rhode Island Nuclear Science Center to expose prototype sensors to neutrons to understand their effect on the performance of the sensors. The talk will discuss the measurement of the neutron flux spectrum of the reactor and the different techniques available for irradiating prototype sensors.

Presenter: BURKLE, Bjorn (Brown University)

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