

IHEF Bachelor Project 2012 – week 19 t/m 26

Naam van project: Characterization of GridPix detectors

Experiment: Detectors R&D

Begeleider: Matteo Alfonsi & Rolf Schön

Beschrijving project:

GridPix is a modern gaseous detector that employs a pixelated chip as readout, resulting in excellent imaging capabilities of the single interactions of the radiation with the gas. An R&D on this kind of devices is ongoing and new prototypes are characterized at Nikhef, where a sealed vessel allows the test with different gas mixtures and gas pressures. The student will use this station to measure quantities like the gas amplification and the detection efficiency of one of this prototype.

Doel:

The student will learn the principle of operation of gaseous detectors and the detection of radiation in general. He will get familiar with the typical instrumentation of a detector development laboratory. He will perform the measurements and the analysis of the data.

Week	Activiteit	Opmerking
19	Intro gaseous detectors	
20	Learning instrumentation	
21	Measurement setup / Data taking	
22	Data taking	
23	Data analysis / Data taking	
24	Data analysis	
25	Data analysis / Report	
26	Wrap up / Report	