



Block Course on Detector Physics (II)
of the
International Max Planck Research School
on Elementary Particle Physics

July 1st & 4th, 2016
10:30 – 11:55 AM

Max Planck Institute for Physics, main auditorium

Lecturer: Dr. Hans-Günther Moser

SILICON DETECTORS

Silicon sensors have been used in High Energy Physics for more than 25 years. They have been continuously improved to meet new requirements and challenges. Based on a simple detection principle many different types of silicon sensors have been developed. This lecture gives an introduction to the basic properties of silicon sensors and the related readout electronics. Several silicon sensor types will be described, which are the building blocks of detectors for tracking and scintillator readout. Besides reviewing state of the art sensor types some new developments will be discussed. This includes extremely radiation hard sensors, sensors for photon counting and especially trends to integrate sensor and readout electronics into monolithic devices. Finally some selected examples of large detector systems will be discussed.

No registration needed.