

Signal formation in semiconductor detectors (I)

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Semiconductor properties, the p-n junction (depletion width, capacitance), fluctuations on the charge (Fano factor), signal induction, drift, diffusion and the small pixel effect. Detectors classification (for example: 1. Hybrid (1.a. hybrid, 1.b. hybrid+3d), 2. Monolithic Active Pixel Sensors (2.a CMOS with charge collection on epitaxial layer, 2.b. Depleted MAPS (HV or HR substrate), CMOS on SOI, DEPFETs).

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