

# Particle Physics Detectors 1

*Thursday 3 August 2023 09:30 (45 minutes)*

In this lecture particle detectors will be introduced starting with a general introduction why and how. This will be followed by the introduction of interaction with matter, mostly concentrating on charged particles. Terms like ionization, Bethe Bloch multiple scattering and Bremsstrahlung will be introduced.

Once the basics are explained, one of the most important sub-detector type ? the calorimeter for the energy measurement will be introduced. Calorimeter concepts and used technologies plus some examples from ATLAS, Belle and CMS will be covered.

**Presenter:** GREGOR, Ingrid-Maria (DESY/Uni Bonn)

**Track Classification:** HEP: High Energy and Particle Physics Lectures