



Contribution ID: 28

Type: **Talk**

## Tomographic Imaging using the Multiple Scattering of Electrons

*Friday 19 September 2025 11:15 (12 minutes)*

electronCT (eCT) is a new imaging method, which uses multiple scattering of electrons to determine the material budget of objects. This imaging method could be used in the context of FLASH radiotherapy with very high energy electrons (50-250 MeV). A pencil beam of MeV electrons is aimed at an object and the widening of the beam is measured, where the widening of the beam is dependent on the material budget that the beam traversed. Proof-of-concept studies have been performed to test this method. This talk will introduce eCT as a concept and discuss the quality of the obtained images based on different measurement variables.

**Primary author:** ABEL, Aenne (CMS (CMS Fachgruppe Detektor))

**Co-authors:** BRAGA DA ROSA, Leticia (CMS (CMS Fachgruppe Detektor)); DE SILVA, Malinda (CMS (CMS Fachgruppe Detektor)); SCHUETZE, Paul (DESY); SPANNAGEL, Simon (DESY)

**Presenter:** ABEL, Aenne (CMS (CMS Fachgruppe Detektor))

**Session Classification:** Parallel

**Track Classification:** Medical physics