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electronCT - A Candidate for Image Guidance in VHEE Radiotherapy — •Aenne Abel[1,2], Leticia Braga da Rosa[1,2], Paul Schütze[1], Malinda de Silva[1], and Simon Spannagel[1] — [1]Deutsches Elektronen-Synchrotron DESY, Notkestraße 85, D-22607 Hamburg — [2]University of Hamburg, Hamburg, Germany

electronCT (eCT) is an imaging method, which uses multiple scattering of electrons to acquire images of unknown objects. This imaging method is a candidate for image guided radiotherapy with very high energy electrons (100-250 MeV). For eCT, a low emittance pencil beam is propagated through an object and the scattering of the beam is quantified. The widening of the beam is dependent on the radiation length of the materials traversed by the beam. A measurement of the opening angle then allows for a reconstruction of the material properties of the sample. In this contribution eCT is introduced as a method, proof of concept studies are shown and the performance is discussed with respect to the obtained tomographic reconstructions.

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