



Contribution ID: 37

Type: **Oral contribution**

Present state-of-the-art dpa models

Thursday 16 January 2025 11:25 (20 minutes)

Atomic collision processes are fundamental to numerous advanced materials technologies, such as electron microscopy, semiconductor processing and nuclear power generation. Understanding the atomistic scale phenomena happening during the primary damage production has been a research topic for many decades, both computationally and experimentally. The standard measurement of quantifying the damage is the Norgett-Robinson-Torrens displacements per atom (NRT-dpa) model. This model is known to have several shortcomings, such as the value it gives neither correspond to the real number of defects produced nor the number of atoms that were displaced. In the last decade, there have been several improvements to this dpa calculation. In this talk, several of the newly developed corrections to the dpa calculation will be presented.

Author: GRANBERG, Fredric (University of Helsinki)

Co-author: NORDLUND, Kai

Presenter: GRANBERG, Fredric (University of Helsinki)

Session Classification: Modelling of radiation effects in superconductors