Thursday, 14 July 2022, 12:30 hrs:

Prof. Dr. Claudia Draxl (Humboldt University, Berlin)
From traditional physics research to data-centric approaches: the role of FAIRness

Abstract:

Data-centric approaches are already complementing our daily research and will even significantly change materials science in the near future. In this respect, data-analytics and artificial-intelligence (AI) approaches are being developed and applied to various problems, and high-throughput screening is going hand in hand with the establishment of small- and large-scale data collections. These resources allow us finding trends and patterns that cannot be obtained from individual investigations and predicting novel candidate materials for a given application, possibly even in regions of the materials space that no-one would think of. To reach this goal, the key prerequisites are novel AI tools with predictive power and Big Data – relevant and reliable data – all combined in a FAIR (Findable, Accessible, Interoperable, and Re-usable) data sharing platform. In 2014, the Novel Materials Discovery (NOMAD) Laboratory set out to make this happen for computational materials science. For a real breakthrough, data from synthesis, experiment, and theory must be brought together. This is going to be realized in the consortium FAIRmat (https://fairmat-nfdi.eu). I will discuss where we are on this road.

Connection details:

ZOOM Meeting “PUNCHLunch seminar”: https://indico.desy.de/event/35100/
Webinar ID: 919 1665 4877, passcode: 481572
Next event: to be announced

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