

PRISMA+ Colloquium

Nov. 22, 2023 at 1 p.m.
Lorentz-Raum, 05-127, Staudingerweg 7

Dr. Monica Dunford
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The LHC's Microscopic View to the Macroscopic

The dynamics of the Standard Model of particle physics play a central role in the properties of not only the microscopic world but also the biggest structures of our universe. The Higgs boson, for example, plays a critical part in how particles obtain their masses but also perhaps to dark matter and how our universe evolved. In this talk, the referent will focus on some key measurements that can be done with the on-going Run 3 data at the LHC and their impact on our understanding of particle physics. She will highlight how these results have connections beyond the microscopic world to dark matter, matter and anti-matter differences and beyond. In addition, she will touch upon future technology developments that will allow us to explore these connections even further.