

PHYSICS Colloquium.

New Directions for Light Dark Matter

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4 March 2020 | 14:00 DESY | Zeuthen | Platanenallee 6 | SR 3 The exploration of dark matter beyond the WIMP is of vital importance towards resolving the identity of dark matter. In this talk, I will focus on light dark matter. From the theory side, I will discuss new theoretical developments that suggest light dark matter. From the experimental side, I will present new proposals for the direct detection of light dark matter which hold much promise. These include the use of superconducting nanowires, two-dimensional targets such as graphene, and Dirac materials. Considering dark matter interactions with these targets, I will demonstrate the potential of the light dark matter direct detection program in upcoming years.



