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Highlights of Dark matter detector technologies

Monday 24 May 2021 10:00 (30 minutes)

The nature of dark matter in the Universe is the Holy Grail for most particle physicists. It is a crucial element that is still missing in our understanding of the Universe and would provide a chance to discover physics beyond the standard model. Currently many experiments around the world are searching for dark matter and utilize detectors with large mass in extremely low background environments. Over the last decades, dark matter detection technologies have reached sensitivities at unprecedented levels to such an extent that new sources of backgrounds previously unseen have to be added. After giving an overview of the different detection techniques around the world to detect directly dark matter, I will present how developing new cutting-edge technologies and dedicated calibrations will help to address the different common challenges of dark matter detection that we are currently facing.

TIPP2020 abstract resubmission?

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Presenter: PIRO, Marie-Cécile (University of Alberta)

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