

Dark Matter at a Future Proton Collider

- The goal of the workshop is to identify the high energy collider signatures associated with different scenarios for dark matter, focusing on opportunities for a next generation pp collider.
- We anticipate that the workshop will lead to new dedicated studies to identify the physics reach of a ~ 100 TeV pp collider with respect to dark matter.

Dark Matter at a Future Proton Collider

Among the questions to be addressed are:

1. What are the implications of BSM scenarios that address dark matter?
2. In these BSM scenarios, what are the overlaps between direct and indirect detection and collider signatures ?
3. What are the signatures at a next generation pp collider of these scenarios and how are they related to the character of the dark matter?
4. To what extent might these scenarios be probed with a next generation hadronic collider and how would such studies complement those anticipated at the LHC and future $e+e-$ colliders ?