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Adapting High Granular and compact silicon calorimeters concepts from Higgs Factories to Dark Matter experiments

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In this talk, we aim to summarize recent simulation studies on the exploitation of silicon-tungsten high-granular calorimeter concepts in Dark Matter and direct searches for new particles in novel experiments. These concepts have been tailored for collider physics, specifically Higgs Factories and the LHC. However, the intrinsic capabilities of these designs, which aim for a low Molière radius and high granularity, potentiate the applicability of these concepts to other experiments, such as the LUXE New Physics with Optical Dump (NPOD) proposal.

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