

## **DARK MATTER SEARCH AT ACCELERATORS**

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Many astrophysical observations as well as anomalies in processes involving electromagnetic currents (e.g. the muon anomalous magnetic moment) could be reconciled assuming the existence of a new kind of matter, not directly interacting with light, called Dark Matter (DM). While gravitational effects of DM are quite well established, despite the tremendous efforts being devoted to reveal the nature of DM in terms of new elementary particles, no clear results have been obtained so far. Due to the lack of results by traditional DM searches, in the last few years the experimental activity extended to search for hints of DM produced at accelerators. Technological advances allow nowadays running high intensity beams of moderate energy well suited for these studies exploring the so called 'intensity frontier'. According to some theories beyond the Standard Model (SM) Light Dark Matter (LDM) (1-1000 MeV) can interact with SM matter via a new force, mediated by a heavy vector boson called A or heavy photon. Depending on the relative masses of the A and the DM particles, the A can decay to SM particles (visible decay) and/or to light DM states (invisible decay). In this talk, I will present an overview of the current and planned experimental activity at the main intermediate energy facilities (JLab, MAMI, SLAC, SPS-CERN).