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Prospects from a cold antideuteron beam in AD/ELENA [Remote talk]

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The generation of low-energy anti-nuclei for experimentation is a formidable challenge, stemming from the difficulty of primarily producing anti-nuclei in more than minuscule quantities during high-energy collisions. A notable exception is the antideuteron, for which several production mechanisms are known with a variety of efficiencies (from 0.1 to 10^-5) and momentum/energy distributions. This presentation explores the perspectives offered by a low-energy antideuteron beam in advancing antimatter physics and assesses its technical feasibility, with a special focus on utilizing the capabilities of the existing AD/ELENA infrastructure.

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