

"A shot in the dark: How CMS searches for new particles in the dark sector"

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The origin of Dark Matter is one of the most pressing open questions in physics. The CMS experiment at CERN has developed a rich search program to tackle this problem, using the largest datasets recorded at the energy and intensity frontiers as well as innovative analysis methods to obtain a long-awaited breakthrough in particle physics. This talk will highlight results and methods in the quest for Dark Matter, and give an outlook to what can be expected in the coming years with novel data analysis strategies relying on artificial intelligence.