How to Discover Dark Matter (again)

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The recent discoveries of the Higgs boson and gravitational waves marked the triumph of two cornerstones of modern physics, the standard model of elementary particles and Einstein’s theory of gravity. However, overwhelming evidence from cosmology suggests that the standard model is inadequate for understanding our universe. There is stuff gravitating that we cannot see with light. In particular, dark matter comprises eighty-percent of the matter in the universe. In this talk, I will present the exciting quest to probe the nature of dark matter in our laboratories, from traditional approaches to new ideas and directions. I will highlight how new dark sector theories are driving us to new frontiers of dark matter searches.