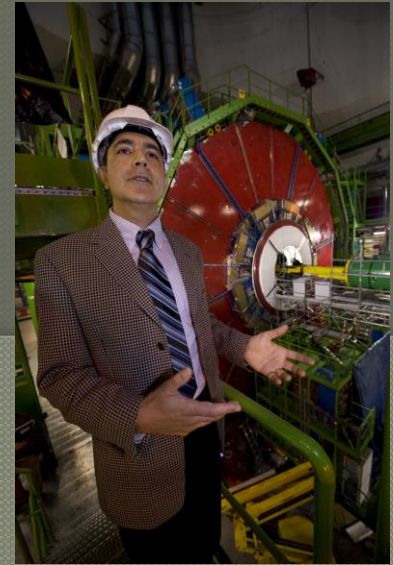


The Undefeated and Triumphant Standard Model of Particle Physics: Observation of the Rare Decay of B Mesons into Muon Pairs

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The Standard Model of particle physics, developed over the last 5 decades, is considered a crowning achievement of 20th century science. It remains undefeated after many stringent tests, the last of which is a precision test of its prediction for the rare decay of B mesons into muon pairs. Yet, the Standard Model is believed to be incomplete as it provides no answer to some of the most intriguing questions, for example the origin of dark matter and the dominance of matter over antimatter. In this talk, I will review what a standard model entails, briefly discuss the Standard Model of particle physics, and describe the recent measurement of the rare B decays by the CMS experiment at CERN. I close by mentioning possible extensions of the Standard Model.