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Julius Edgar Lilienfeld Prize Lecture: The Higgs Boson, String Theory, and the Real World

GORDON KANE, University of Michigan

In this talk I'll describe how string theory is exciting because it can address most, perhaps all, of the questions we hope to understand about our world: why quarks and leptons make up our world, what forces form our world, cosmology, parity violation, and much more. I'll explain why string theory is testable in basically the same ways as the rest of physics, and why much of what is written about that is misleading. String theory is already or soon being tested in several ways, including correctly predicting the recently observed Higgs boson properties and mass, and predictions for dark matter, LHC physics, cosmological history, and more, from work in the increasingly active subfield "string phenomenology."