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Type: **Talk**

Supersymmetry: to be or not to be?

Thursday 7 July 2016 11:30 (30 minutes)

Abstract: “LHC data have so far shown no evidence of low energy (N=1) supersymmetry, and it is thus not excluded that it is simply not there. What would the implications of such a non-discovery be for the whole idea of supersymmetry? In this talk I will discuss possible consequences of such a non-discovery from a more theoretical perspective, and point to an alternative scenario based on some strange numerology relating the 48 quarks and leptons of the Standard Model to the 48 spin-1/2 fermions of maximal N=8 supergravity remaining after complete breaking of supersymmetry. I will also explain how new theoretical concepts ‘beyond’ supersymmetry may help to explain the emergence of the Standard Model from a Planck scale unified theory.”

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Session Classification: Plenary