Contribution ID: 16

Type: not specified

New physics searches at LHC run II using effective field theory

Friday 2 December 2016 12:00 (20 minutes)

In the case in which no new resonances are directly produced at the LHC, new physics effects are best studied using effective field theory methods. In this scenario, the contribution of new heavy particles can be parametrized in terms of an effective lagrangian that contains higher-dimensional operators made of Standard Model (SM) fields. Largest effects are expected to come from operators with lower dimension. In the SM, the leading operators appears at dimension-six and are suppressed by two powers of the new physics scale. My research line is based on the study of the effects of higher-dimensional operators on LHC observables. The goals are to set stringent bounds on the coefficients of dimension-6 operators taking into account new experimental measurements from the Run II of LHC and to design optimized shape analysis for the high luminosity LHC phase.

Tipo de Apresentação

Oral

Author:Dr TONERO, Alberto (UNIFAL-MG Poços de Caldas)Presenter:Dr TONERO, Alberto (UNIFAL-MG Poços de Caldas)

Session Classification: Comunicações Orais I