



SEMINARIO

GRUPO FÍSICA DE ALTAS ENERGÍAS

"Supersymmetry, fact or fake?"

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Abstract

20th Century Physics, after the establishment of quantum theory, surfs intensely on the concept of symmetry - which is implemented through Group Theory - and, based on principles of invariance, makes major predictions about the existence of new forms and new behavior of matter. Observations with cosmic rays and large experiments with particle accelerators gradually, over the past decades, confirm the existence of these elementary particles, predicted far in advance and revealed through the understanding (philosophical above all) that Nature has an intrinsically mathematical quality, as defended by Paul Dirac. Supersymmetry entered the scene in 1973, at a special moment in which the Standard Model was being settled down with its well-known limitations. Supersymmetric partners that do not appear and regions of the MSSM that are increasingly restricted by recent experiments are elements, for many, of loss of confidence in this strongly consequent principle of invariance. The purpose of this contribution is to bring elements to reflect on this area that has already gone beyond the limits of the Physics of Fundamental Interactions and Elementary Particles, clarify the advances it has brought, the expectations it has not met and discuss what we can still expect from the area.

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a las 14:30 hrs. (Chile Continental)

Join Zoom Meeting

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