Università degli Studi di Trieste

Dipartimento di Fisica

Seminario

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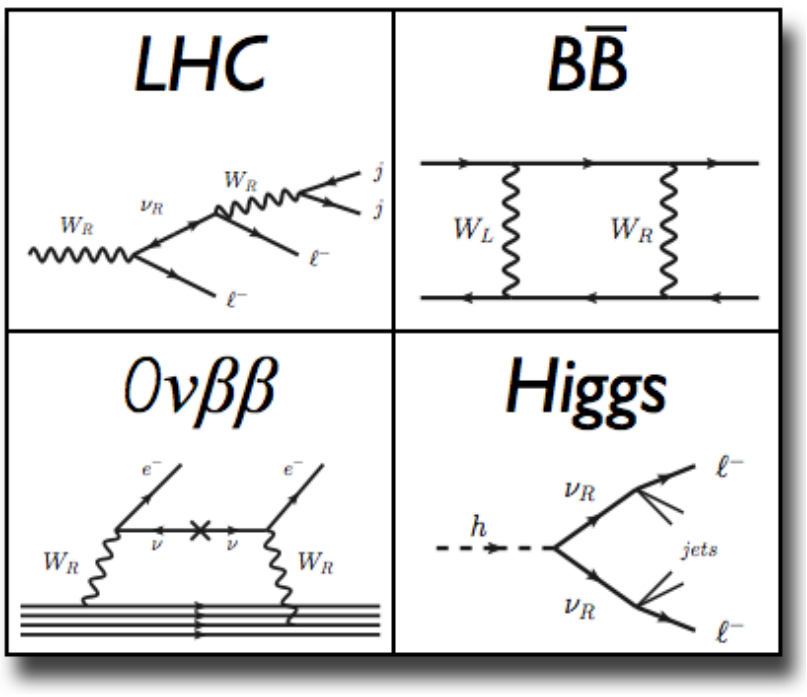
May 27, 4.30 PM - Lecture room A, F building, Dip. di Fisica - via Valerio, 2 – Trieste

From neutrino masses to Lepton Number Violation at Colliders

While the Standard Model and the Higgs mechanism are proving triumphant in explaining the masses of elementary particles such as gauge bosons and charged fermions, a similar understanding for the masses of neutrinos is still missing. I review the possibility that parity is restored at low energies as in Left-Right Symmetric theories, which directly offer a framework for the neutrino mass mechanism. I first discuss the indirect bounds and the sensitivity in flavour changing and CP-violation observables (mainly K mesons and B in the future). Then I describe the observable consequences of low scale Lepton-Number Violation and the interplay between different phenomena, from neutrinoless double beta decay to striking production at LHC of new gauge bosons and new possible decays of the Higgs bosons with displaced vertices, all contributing to probe the neutrino mass origin.



Organizzazione a cura di: Prof. L. Lanceri, Dr. L. Vitale, Prof. G. Della Ricca, Dr. E. Vesselli

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Everyone interested in the topic is welcome to attend

Informazioni: seminari@ts.infn.it