LABORATORI NAZIONALI DEL GRAN SASSO

THEORETICAL SEMINAR

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"Seesaw and Massive Neutrinos, from Collider to Cosmology"

Proof of neutrino masses and mixing from a series of outstanding experimental efforts have opened a window to physics beyond the standard model of particle physics. There must be some underlying theory which explains the very particular neutrino mass differences and mixing. It is well known that seesaw mechanism has its success in explaining the smallness of neutrino mass. In this talk I will discuss about the possibility to test the seesaw at colliders, specially in the context of type-III seesaw with two Higgs doublets and the embedding of type-III seesaw into a R-parity violating supersymmetric framework. I will also discuss the interrelation between the seesaw, form dominance and the baryon asymmetry of the universe.

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