ID de Contribution: **673** Type: **Parallel session talk**

Non-minimal Kaluza-Klein dark matter

jeudi 21 juillet 2011 10:15 (15 minutes)

We discuss experimental signatures of non-minimal Kaluza-Klein dark matter. In the minimal Universal Extra Dimensions model, there is a unique possible dark matter candidate, the first Kaluza-Klein excitation of the U(1) gauge boson B. On the other hand, in non-minimal models, allowing for general boundary localized terms, the mass spectrum is different, and such models allow for other dark matter candidates. In this talk, we focus on the first Kaluza-Klein excitations of the Z boson and the neutral Higgs boson. These are the possible non-minimal WIMP type candidates that are not already ruled out by experiments. For these dark matter particles, the phenomenological predictions are changed from the minimal Kaluza-Klein dark matter scenario. We discuss recent results on the relic abundance, the indirect detection signatures from neutrinos and gamma rays, and the prospects of direct detection.

Auteur principal: MELBÉUS, Henrik (Royal Institute of Technology (KTH))

Orateur: MELBÉUS, Henrik (Royal Institute of Technology (KTH))

Classification de Session: Astroparticle Physics

Classification de thématique: Astroparticle Physics