

Fundamental physics in the cosmos: The early, the large and the dark Universe



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Dark Matter in $SO(10)$ GUT

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$SO(10)$ grand unified theories can ensure the stability of new particles in terms of the gauge group structure itself, and in this respect are well suited to motivate and accommodate dark matter (DM) candidates in the form of new stable massive particles. I will give an overview of DM scenarios and related phenomenology within the framework of non-supersymmetric $SO(10)$. In the last part of the talk I will present recent development with $SO(10) \times U(1)$, where the abelian part arises from E_6 grand unification. This framework offers a rich and varied DM phenomenology.

Primary author: Dr BOUCENNA, Sofiane (KTH Royal Institute of Technology)

Presenter: Dr BOUCENNA, Sofiane (KTH Royal Institute of Technology)

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