ID contributo: **15**   Tipo: **Parallel talk**

Searching for a DM candidate via antiprotonic 3He

martedì 9 luglio 2024 15:20 (20 minuti)

A wide range of dark matter candidates have been proposed and are actively being searched for in a large number of experiments, both at high (TeV) and low (sub meV) energies. One dark matter candidate, a deeply bound uuddss sexaquark, S , with mass ~ 2 GeV,
(having the same quark content as the hypothesized H-dibaryon, but long lived) is particularly difficult to explore experimentally. Here, we propose a scheme in which such a state could be produced at rest through the formation of $\bar{p}^3$He antiprotonic atoms and their annihilation into $K^+ K^+ \pi^-$, identified both through the unique tag of a S=+2, Q=+1 final state, as well as through full kinematic reconstruction of the final state recoiling against it.

Autore principale: DOSER, Michael (CERN)

Relatore: DOSER, Michael (CERN)

Classifica Sessioni: Parallel 2

Classificazione della track: Parallel session: Theory