



Contribution ID: 490

Type: Parallel talk

Search for a stable six-quark state in Υ decays at *BABAR*

Thursday 11 July 2019 14:30 (20 minutes)

Recent investigations have suggested that the six-quark combination $uuddss$ could be a deeply bound state (S) that has eluded detection so far, and a potential dark matter candidate. We report the first search for a stable, doubly strange six-quark state in $\Upsilon \rightarrow S\bar{\Lambda}\bar{\Lambda}$ decays with the *BABAR* experiment. No signal is observed, and limits on the combined $\Upsilon(2S, 3S) \rightarrow S\bar{\Lambda}\bar{\Lambda}$ branching fraction set stringent limits on the existence of such exotic particles.

Authors: ANULLI, Fabio (Sapienza Universita e INFN, Roma I (IT)); EIGEN, Gerald (University of Bergen (NO))

Presenter: EIGEN, Gerald (University of Bergen (NO))

Session Classification: Dark Matter

Track Classification: Dark Matter