

Search for the eta-mesic helium in non-mesonic decays

Saturday, 9 June 2018 14:30 (1:30)

Collaboration

WASA-at-COSY

Abstract content

The existence of mesic nuclear matter was postulated thirty years ago, however, until now it has not been confirmed experimentally. In this talk, we will report on the status of the search for the eta-mesic nuclei with the WASA-at-COSY detector. Such system in the form of the eta mesic-helium may be created for example in the deuteron-deuteron or proton-deuteron fusions. The talk will be focused on the status and perspectives of the search for the eta-mesic helium with the emphasis on new results from the studies of the non-mesonic decay channels.

P. Adlarson et al., Nucl. Phys. A 959, 102 (2017) 102

P. Adlarson et al., Phys. Rev. Lett. 120 (2018) 022002

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Session Classification : Poster Session