## MEDEX'19



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## Experimental studies of axial-vector weak couplings for double beta decays by nuclear and muon reactions

Tuesday, May 28, 2019 10:00 AM (30 minutes)

We report experimental studies of nuclear matrix elements (NME) for astro-neutrinos and double beta decays(DBDs) by nuclear and muon charge exchange reactions. The axial-vector NMEs for various multipolarities for both  $\tau^+$  and  $\tau^-$  sides in wide energy and momentum regions, which are relevant to sypernova and DBDs, are reduced with respect to pnQRPA MNEs. They are discussed in terms of the effective axial-vector coupling  $g_A^{eff}$ .

[1] H. Ejiri 2000 Phys. Report 338 265.

[2] H. Ejiri , J. Suhonen and K. Zuber 2019 Physics Report 797 1.

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