Contribution ID: **25** Type: **Parallel oral presentation**

The X17 boson anomaly: status and prospects

Thursday 17 November 2022 17:00 (15 minutes)

Certain anomalies observed in the angular correlation spectra of electron/positron pairs produced in nuclear transitions of ⁸Be, ⁴He and ¹²C can be interpreted as the emission of a bosonic particle with a mass of 17 MeV, that promptly decays into e⁺e[−]. I review the current status of these anomalies and the theoretical interpretation for the hypothetical new particle. I will also describe the experimental prospects for validating or disproving the X17 hypothesis, and I will stress the importance of verifying the experimental nuclear physics hint by means of a particle physics experiment.

Poster fallback option for rejected abstracts for parallel oral presentations

No

Author: Dr NARDI, Enrico (INFN Laboratori Nazionali di Frascati)

Presenter: NARDI, Enrico (INFN e Laboratori Nazionali di Frascati (IT))

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