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Possible explanation of the electron positron anomaly at 17 MeV in ^8Be transitions

The Atomki facility in Debrecen, Hungary, has observed a significant excess in electron positron pair production in ^8Be transitions corresponding to a possible intermediate particle of a mass of about 17 MeV. It will be reviewed why very light still unknown particles can have escaped detection up to now, and where they may be discovered. The nuclear transitions within ^8Be will be introduced. Various possible explanations for the observed anomaly will be discussed, and why these explanations can be consistent with constraints from other experiments.

Mercredi 13 septembre 2017, 11h30
IPN, Bât. 100, Salle des conseils