



LNGS SEMINARS

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New results on the search for the violation of the Pauli Exclusion Principle for electrons from VIP2 experiment

Abstract

We present the VIP2 experimental method to look for possible small violations of the Pauli Exclusion Principle (PEP) for electrons, through the search for "anomalous" X-ray transitions in copper atoms, produced by "fresh" electrons (brought inside the copper bar by circulating current) which can have the probability to do the Pauli-forbidden transition to the 1 s level already occupied by two electrons. We describe the VIP2 (VIolation of PEP) upgraded setup which is taking data at the Gran Sasso underground laboratories, searching for these Pauli-prohibited transitions. We will report new results of data analyses, showing a limit better than the previous VIP2 one, together with future plans.

November 8, 2018 - h 2:30 pm

LNGS - "B. Rossi" room

<http://agenda.infn.it/event/pichler>