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Measurements of the Pauli's Exclusion Principle violation with X-Rays detectors: the VIP group

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Pauli's Exclusion Principle (PEP) is the basis of the stability of matter and many other phenomena relevant to physics, astrophysics, cosmology, and even biology. It is related to the spin-statistics theorem, and possible violations of this relation have been searched for since its inception. Violations of the PEP may come from various Beyond Standard Model descriptions, including Quantum Gravity models, which are being recently developed.
I shall present the VIP group's efforts in searching for possible small PEP violations using open and close systems. The former will focus on the VIP-2 experiment, suited for models that respect the Messiah-Greenberg Super-Selection rule; the latter will focus on BEGe and VIP-Lead experiments, befitted for Non-Commutative Quantum Gravity models.

Summary

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