Chiral symmetry restoration in nuclear medium observed in pionic atoms

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We report the recent results of spectroscopy of deeply bound pionic atoms. After elaborate analyses, we deduced the chiral condensate at the nuclear saturation density to be reduced by a factor of 60+-3% (T. Nishi, K. Itahashi et al., Nat. Phys. (2023) doi:10.1038/s41567-023-02001-x). We also discuss our future plans to make the spectroscopy in the inverse kinematics.

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