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## Nuclear structure from light muonic atoms

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Muonic atoms have an increased sensitivity on finite size effects of the nucleus due to the <sup>2</sup>00-fold mass of the muon compared to the electron. The CREMA collaboration has measured the Lamb shift in muonic hydrogen and muonic deuterium atoms, as well as in muonic helium-4 and helium-3 ions. These measurements allow to determine charge radii and other nuclear properties with improved precision compared to previously conducted measurements. Contributions to solving the proton radius puzzle as well as the discrepancy in electronic isotope-shift measurements from the collected data will be discussed.

A status update of CREMA's ongoing data analysis towards charge radius extractions

of the deuteron, helion, and the alpha particle will be given.

Current analysis-related topics such as theory issues and possible systematics

will be shown,

together with an outlook for possible future measurements using bound muonic systems.

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