

## Predicting and Discovering True Muonium

*Tuesday, 12 September 2017 16:00 (20 minutes)*

The recent observation of discrepancies in the muonic sector motivates searches for the yet undiscovered atom true muonium ( $\mu^+\mu^-$ ). To leverage potential experimental signals, precise theoretical calculations are required. I will present the on-going work to compute higher-order corrections to the hyperfine splitting and the Lamb shift. Further, possible detection in rare meson decay experiments like REDTOP and using true muonium production to constrain mesonic form factors will be discussed.

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