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## **Hadronic vacuum polarization: comparing lattice QCD and data-driven results in systematically improvable ways**

*Tuesday, 1 August 2023 16:20 (20 minutes)*

Significant tensions are observed between the dispersive and the lattice QCD results for hadronic vacuum polarization (HVP). We will present a general framework that allows to compare the two approaches and to combine them, if they can be reconciled. We have applied this framework to determine the distance or energy scales that could be responsible for the observed tensions and we will present the ensuing results. We will also discuss the limits in the information that can be extracted from a finite set of moment integrals of the R-ratio.

### **Topical area**

Quark and Lepton Flavor Physics

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**Session Classification:** Quark and Lepton Flavor Physics