Contribution ID: **365** Type: **Oral Presentation**

An update on QCD+QED simulations with C* boundary conditions

Friday, August 12, 2022 4:40 PM (20 minutes)

We give an update on the ongoing effort of the RC* collaboration to generate fully dynamical QCD+QED configurations with C* boundary conditions using the openQ*D code. The simulations are tuned to the U-symmetric point ($m_d = m_s$) with pions at $m_{\pi^\pm} \approx 400$ MeV. The splitting of the light mesons is used as one of three tuning observables and fixed to $m_{K^0} - m_{K^\pm} \approx 5$ MeV and $m_{K^0} - m_{K^\pm} \approx 25$ MeV on ensembles with renormalized electromagnetic coupling $\alpha_R \approx \alpha_{\text{phys.}}$ and $\alpha_R \approx 5.5\alpha_{\text{phys.}}$ respectively. In this talk we will discuss some details concerning our tuning strategy, we will present our calculation of the meson and baryon masses, and we will comment on finite-volume effects comparing meson masses on two different volumes with $m_{\pi^\pm} L \approx 3.2$ and $m_{\pi^\pm} L \approx 5.1$. Finally, we will also present a cost analysis for our simulations. More technical details will be discussed in the companion poster presented by A. Cotellucci.

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Session Classification: Hadron Spectroscopy and Interactions

Track Classification: Hadron Spectroscopy and Interactions