Contribution ID: **2** Type: **Contributed Oral**

Meson-Hybrid Mixing in Vector and Axial Vector Charmonium

Thursday, 9 May 2019 17:15 (15 minutes)

We investigate mixing between conventional mesons and hybrid mesons in vector and axial vector charmonium using the QCD sum-rules formalism. We compute meson-hybrid cross correlators within the operator product expansion, taking into account condensate contributions up to and including those of dimension-six as well as composite operator renormalization-induced diagrams. Using measured masses of charmonium states as input, we probe known resonances for nonzero coupling to both conventional meson and hybrid meson currents, a signal for meson-hybrid mixing.

Funding Agency

NSERC

Email

derek.harnett@ufv.ca

Primary author: Dr HARNETT, Derek (University of the Fraser Valley)

Co-authors: Mr PALAMETA, Alex (University of Saskatchewan); Mr HO, Josha (Deloitte Canada); Dr STEELE, Tom (University of Saskatchewan)

Presenter: Dr HARNETT, Derek (University of the Fraser Valley)

Session Classification: Parallel session 1

Track Classification: Heavy non-q\bar{q} Mesons and Pentaquarks