

# Meson-Hybrid Mixing in Vector and Axial Vector Charmonium

*Thursday, May 9, 2019 5:15 PM (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.

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## 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)

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