



Canadian Association
of Physicists

Association canadienne
des physiciens et physiciennes

Contribution ID: 2388

Type: Oral (Non-Student) / Orale (non-étudiant(e))

Probing the Strangeonium Hybrid Content of the Y(2175) Using Gaussian Sum-Rules

Wednesday, June 5, 2019 12:00 PM (15 minutes)

The Y(2175) resonance was first observed in an initial state radiation process by the BaBar Collaboration. It was later confirmed by the BES, Belle, and BESIII collaborations. A conventional strangeonium meson interpretation of the Y(2175) is disfavoured due to the resonance's relatively narrow width and unexpected decay patterns. As such, it may be an outside-the-quark-model hadron, e.g., a hybrid, tetraquark, and/or meson molecule. We use Gaussian sum-rules—a variant of QCD sum-rules well-suited to studying multi-resonance models—to investigate possible strangeonium hybrid content of the Y(2175).

Primary authors: HARNETT, Derek (University of the Fraser Valley); HO, Jason (University of Saskatchewan); Mr BERG, Ryan; STEELE, Tom (U of Saskatchewan); CHEN, Wei (Sun Yat-sen University)

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

Session Classification: W1-4 Advances in Nuclear and Particle Theory (DTP/PPD/DNP) | Progrès en théorie nucléaire et théorie des particules (DPT/PPD/DPN)

Track Classification: Theoretical Physics / Physique théorique (DTP-DPT)