

HALL D INTERVIEW SEMINAR

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PrimEx-eta, JEF, and beyond

Radiative and hadronic decays of light mesons supply a unique laboratory to test low energy Quantum Chromodynamics and to search for new physics beyond the Standard Model. The current PrimEx-eta measurements and the future JEF experiments will soon offer critical input to precisely measure the η radiative decay width, determine the light quark mass ratios, meson mixing parameters, and hadronic contributions to the anomalous magnetic moment of the muon. Additionally tagged light meson decays allow to search for new hypothetical sub-GeV scale dark particles (dark photonslike, dark Higgs bosons-like, and axion-like particles) as well as to tests of discrete symmetry violation. The talk will present the physics objectives and status of the PrimEx-eta measurements, the JEF experimental program, and possible new measurements in Hall D during the KLF era and the 17/22 GeV electron beam era.

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VIA ZOOM

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