

Associated quarkonium production at ATLAS as a new probe of QCD

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We present new measurements of the associated production of quarkonium with a vector boson or an additional quarkonium state using the ATLAS Run-1 dataset. These rare processes provide new insight into QCD models of quarkonium production, but also provide new opportunities to study double parton scattering, including cross-section measurements in single and double parton scattering dominated regimes and a precise assessment of the σ_{eff} parameter governing the effective spatial area of parton-parton interactions at a variety of energy scales.

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