

PHI 13 PSI 13

Contribution ID: 8

Type: **not specified**

Virtual photon-photon scattering

Monday, 9 September 2013 16:35 (20 minutes)

We present a formalism for the scattering of two photons into a pion pair based on dispersion relations in combination with unitarity, chiral symmetry, and soft-photon constraints. In particular, we discuss the complications that arise due to the analyticity properties of the amplitude if both photons are off-shell, and argue that the dispersive framework can be extended to remain valid even in that case. Such a representation is crucial input for a reduction of model dependence in the light-by-light scattering contribution to the anomalous magnetic moment of the muon.

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Session Classification: Measurement and Theoretical Evaluation of $g-2$ (I)