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# Hadronic contribution from light by light processes in (g-2) of the muon in a nonlocal quark model

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## Summary

Contribution of processes of light by light scattering into anomalous magnetic moment (AMM) of muon lies in low energy region where the perturbative methods of QCD are not applicable. We should account nonperturbative effects of vacuum QCD. Nonlocal quark model is a good example of quark model that can make the evaluation of hadronic contribution in AMM of muon.

The total contribution in zero order by  $1/N_c$  is estimated as

$$a_{\text{HLbL}}^{\mu} = 16.8(1.25) \cdot 10^{-10}$$

Both degrees of freedom play a role in these processes: mesons and quarks.

For solving the puzzle of LbL contribution, we should have a better understanding of the physics of strong interaction at long distance and have model-independent evaluations needed and more precision data on different meson decays.

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**Session Classification:** Muon g-2