Magnetic Moments of Decuplet Baryons in Light Cone QCD

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Abstract

The calculation of the magnetic moments of decuplet baryons within the framework of light cone QCD sum rules taking into account the SU(3) flavor symmetry breaking effects is presented. It is obtained that magnetic moments of the neutral Σ^{*0} and Ξ^{*0} baryons are mainly determined by the SU(3) breaking terms. A comparison of our results on the magnetic moments of the decuplet baryons with the predictions of other approaches is presented.