

Electromagnetic baryon form factors in the Poincaré covariant Faddeev approach

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Recent results for the Green's functions of Landau gauge QCD will be used to formulate a Poincaré-covariant Faddeev approach to baryons. The resulting three-body amplitudes for a given spin and parity describe the quark core of the respective baryons. In recent calculations the full three-body problem has been solved in a framework in which the interaction among quarks is reduced to a vector-vector interaction via a single dressed-gluon exchange (Rainbow-Ladder truncation). The formalism allows for the study of the baryon spectrum as well as their internal properties. In this talk I will focus on recent results for electromagnetic form factors for nucleons and spin-3/2 baryons. Their model independent features are assessed using two different models for the interaction. The results for charge radii and magnetic moments as a function of the quark current mass provide some indication what the pion cloud (missing in this calculation but present in nature) may contribute to baryonic properties.

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