Light Cone 2021: Physics of Hadrons on the Light Front



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The pseudoscalar meson dominance and pion-nucleon coupling constant

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Following simple large Nc arguments and perturbative QCD constraints complemented with uncertainty estimates based on the idea of meson dominance and the half-width rule, we describe the pseudoscalar form factors of the nucleon. We analyze their implications in the space-like region at intermediate and low energies and compare to recent lattice QCD determinations. Our analysis allows for a simple determination of the pion-nucleon coupling constant at a precision level that matches the most accurate determination to date based on the analysis of the Granada nucleon-nucleon database (8000 experimental *NN* scattering data).

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