

Baryon structure from a light-front Hamiltonian approach

We solve the structure of baryons in a nonperturbative approach in the framework of light-front Hamiltonian, named Basis Light-front Quantization (BLFQ). We apply BLFQ to study the structure of the nucleon and the heavy baryons containing one strange or charm quark. I will show the resulting observables such as the form factors and various parton distribution functions characterizing the three dimensional structure of the baryons. Finally I will report the preliminary results on the gluon distribution in the nucleon and its contribution to the nucleon spin.

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