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Hadronic Properties from Basis Light Front Quantization

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Basis Light Front Quantization provides a practical framework and is actively used for solving the mass eigenvalue problem of the light-front Hamiltonian for hadronic systems. I will review recent results for mixed-flavor and light mesons as well as for baryons. These results include masses, decay constants, transition rates, form factors, parton distribution functions including their QCD evolution, transverse momentum distributions, non-perturbative time-dependent scattering amplitudes and others. Comparisons with experimental data as well as with results from Lattice QCD and the Dyson-Schwinger approach will be presented where available. Prospects for applications to more complex multi-quark and multi-gluon systems will be outlined.

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