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## **Basis Light Front Quantization - Recent Results and Future Prospects**

*Friday, 25 September 2015 11:45 (30 minutes)*

Light-front Hamiltonian field theory has advanced to the stage of becoming a viable non-perturbative method for solving forefront problems in strong interaction physics. Physics drivers include hadron mass spectroscopy, generalized parton distribution functions,

spin structures of the hadrons, inelastic strength functions, hadronization, particle production by strong external time-dependent fields in relativistic heavy ion collisions, and many more.

I will review selected recent results with Basis Light Front Quantization (BLFQ) that include Fermion-Antifermion bound states in QED and in QCD. I will then present a selection of near-term projects/plans and their challenges. Computational resources on leadership class supercomputers play an essential role in these projects/plans.

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