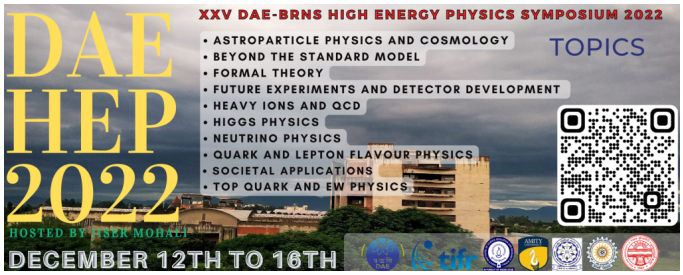

Contribution ID: **34** Type: **Poster**

Mechanical properties and gravitational form factors of a dressed quark in light-front Hamiltonian QCD

Monday 12 December 2022 14:00 (1 hour)

We calculate the gravitational form factors (GFFs), pressure, shear and energy distributions for a quark state dressed with a gluon at one loop in QCD. We call this model as dressed quark model (DQM). We use the light-front Hamiltonian approach. In the light-front gauge, we use a two component formalism to eliminate the constrained fields. The state may be thought of as a perturbative model for a relativistic spin-$\frac{1}{2}$ composite system having a gluonic degree of freedom. We compare the results with model calculations for a nucleon.

Session

Heavy Ions and QCD

Authors: MUKHERJEE, Asmita; Dr MORE, JAI; NAIR, SREERAJ; SAHA, Sudeep

Presenter: SAHA, Sudeep

Session Classification: Poster - 1