The D-term and Force Densities on the Light Front[1] ADAM FREESE, GERALD MILLER, University of Washington — Spatial densities of local currents such as energy, momentum, pressure and shear forces are defined through matrix elements of local operators between physically realizable states. We show that one can relate spatial densities to Fourier transforms if light front coordinates are used, and that the spatial description is limited to the two spatial dimensions transverse to the light front. The relationships of the two-dimensional mass density, pressure, and shear force densities to the gravitational form factors are given, and stability conditions for the D-term are derived on the light front.

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