The pressure distribution inside the proton

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1. What is the importance of this paper ? part I: The author in her seminar said that from the pressure distribution or other similar analysis, a radial distribution or mean radius of the proton could be extracted. How would that measurement be different than the measurements that we use already as the radius of the proton? What does that have to do with gravity and the reason these other related quantities are called GFF's? (**Cole**)

2. What is the importance of this paper ? part II: See part I. What kind of theory/model would be used for calculating/describing graviton-proton scattering? Why would we would need graviton-proton scattering to directly access the GFF's, the pressure measured, or any of the other related quantities mentioned in the paper ? Could General Relativity be used? (**Shiv**)

3. What is Spontaneous Symmetry Breaking, and give the two most famous/important examples. What is the spontaneous breakdown of Chiral Symmetry and when did, or does, it happen? Why can knowing the information, of which the pressure distribution is one example of, (see question # 1 above) allow us to learn something new about confinement? (**Mamun**)

4. What is Deep inelastic scattering? What quantities are typically measured with this kind of scattering? What is DVCS? (**Kristyn**)

5. What are GPD's and how do you extract GPD's from DVCS data? (**Abinash**)

6. What are the difference between $H(x, \xi, t)$ and $E(x, \xi, t)$ Does it make sense that integrals of these quantities are related to the gravitational/pressure quantities? (**Matt**)

7. What is the Compton Form Factor? How can we say that the Beam spin asymmetry is sensitive to the Imaginary part of the Compton Form Factor? (**Ibrahim**)

8. How do we measure the pressure distribution in a neutron star? (**Sud**)

9. What is the Chiral Quark Soliton model? What is a Soliton? What statements made/concepts in this paper are heavily influenced by statements made in the paper on this model which is referenced in the paper? (**Chowdhury**)

10. How do we interpret $r^2 p(r)$ to look at the radial pressure distribution? (**Yenuel**)