P3/2 state in New Dirac Equation DAVID MAKER — In this talk I explain the very interesting properties of the *most probable* excited state of a *new* type of Dirac equation and singularity when applied to a *single* type of charge 'e'. Notably this first excited state psi*psi P3/2 (state lobes) shape is a trifolium, *three* lobed. Thus for each lobe there is a (1/3)e average charge given the charge 'e' spends on average 1/3 of the time in each lobe. Thus combinations of lobes have average charge, **e/3**, 2e/3 (*FRACTIONAL CHARGE*) or e. The lobes *can't leave (ASSYMPTOTIC FREEDOM)* or move so are *NONRELATIVISTIC*. The singularity of this Dirac equation results in containment at about .6 Fermi, the TOTAL CHARGE is still '**e**'(explaining away the need for *COLOR*), etc. Most importantly the Frobenius series solution to this new Dirac equation also gives accurate hadron eigenvalues. You quickly see that you are getting here all the properties of quarks (identified here as individual lobes) obtained in a very simple way from the movement of a single unit charge 'e' using this new Dirac equation. There appears no simpler way to explain all these many quark properties.

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