A Zero free Parameter and Zero Counter Term Requirement Found By Replacing the Gauge Derivative General Covariance with Metric Nontrivial General Covariance in The Dirac Equation DAVID MAKER, none — We replace the general covariance in the gauge derivatives in the Standard Model (SM) with a metric general covariance. The result is a new Dirac equation pde ($\sqrt{g}_{\mu\mu}\gamma_\mu\partial\psi/\partial x_\mu + i\omega\psi = 0$ (sum on μ) with $g_{oo}=1\text{-}e^2/rm_ec^2 \equiv 1\text{-}r_H/r$) requiring **no** free parameters, instead of the 18 of the SM, where here r_H just sets the spatial scale. To illustrate the power of this technique we note here that equivalence principle considerations allow only *one* type of charge e. Also $g_{oo}=0$ at r=r_H with stability the result. Note also that near r_H the $2P_{3/2}$ state for this new Dirac equation gives a azimuthal trifolium, 3 lobe shape; so this **ONE** charge e (so don't need **color** to guarantee this) spends **1/3** of its time in each lobe (**fractionally charged** lobes), the lobe structure is locked into the center of mass (**asymptotic freedom**), there are **six** 2P states (corresponding to the 6 flavors); which are the **main properties of quarks**! without invoking free parameters. The S matrix of this new pde gives the W and Z as resonances and does not require renormalization counterterms or free parameters thereby restoring sanity to theoretical physics. It is vital that the physics community adopt this method if it is to break out of the 30 years of stagnation created by the confusion caused by these free parameters and counterterms.

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