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**Geometric Solution of the Hierarchy Problem by Means of Einstein-Cartan Torsion** CARL DIETHER, JOY CHRISTIAN, Einstein Centre for Local-Realistic Physics — Two of the major open questions in particle physics are: (1) why are there no elementary fermionic particles observed in the mass-energy range between the electroweak scale and the Planck scale? And (2), what mechanical energy may be counterbalancing the divergent electrostatic and strong force energies of point-like charged fermions in the vicinity of the Planck scale? In this paper, using a hitherto unrecognized mechanism derived from the non-linear amelioration of Dirac equation known as Hehl-Datta equation within Einstein-Cartan-Sciama-Kibble extension of general relativity, we present detailed numerical estimates suggesting that the mechanical energy arising from the gravity-induced four-fermion interaction within this theory can address both of these questions in tandem.

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