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A Measurement of Top Quark Charge in CDF[1] ZEYNEP GUNAY, Michigan State Univ., CDF COLLABORATION — The top quark was discovered in 1995 by the CDF and D0 experiments at Fermilab. Since its discovery there have been several measurements of the top quark's mass and cross section. Due to this quark's special role in electroweak symmetry breaking, other parameters such as its charge and spin should also be measured. After 3 years of taking data for Run II CDF now has enough statistics to attempt to measure the top quark's charge for the first time. The Standard Model predicts the top quark charge to be +2/3 but alternative theories allow a fourth generation exotic quark with a charge of -4/3. We present a method for measuring the sign of the top charge via its decay products and placing a limit on the likelihood of our data being consistent with the Standard Model.

[1]For the CDF Collaboration

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