

1127-35-151

Andrew Comech* (comech@math.tamu.edu), Mathematics Department, Texas A&M University, Mailstop TAMU3368, College Station, TX 77843-3368, and **Nabile Boussaid** (nabile.boussaid@univ-fcomte.fr), Laboratoire de Mathématiques, Université de Franche-Comté, 16 route de Gray, Besançon, France. *Stability of solitary waves in the nonlinear Dirac equation*. Preliminary report.

We consider the point spectrum of non-selfadjoint Dirac operators which arise as linearizations at solitary wave solutions to the nonlinear Dirac equation. We prove that in the nonrelativistic limit ($\omega \lesssim m$) the solitary waves in the Dirac equation with scalar-type self-interaction ("Soler model") are spectrally stable when the nonlinearity is "NLS-charge-critical" or subcritical (but not too small). (Received February 01, 2017)