

1097-35-420

Alim Sukhtayev* (alim@math.tamu.edu), Department of Mathematics, Mailstop 3368, College Station, TX 77843, and **Andrew Comech** and **Gregory Berkolaiko**. *Energy criterion of linear instability of solitary waves in models of classical self-interacting spinor fields.*

We study the linear stability of localized modes in self-interacting spinor fields, using the generalization of the Grillakis-Shatah-Strauss approach. We show that vanishing of the energy functional indicates the border of the region of linear instability. (Received January 27, 2014)