1126-37-83 **Paul Cornwell*** (pcorn@live.unc.edu) and **Christopher Jones**. *Stability of traveling waves and the Maslov index.*

The Maslov index is a topological invariant assigned to curves of Lagrangian subspaces of a symplectic vector space. It arises naturally in attempts to generalize Sturm-Liouville theory to systems of equations. Our motivation is twofold; first, we wish to broaden the class of stability problems to which the Maslov index can be applied. Second, we would like to calculate the Maslov index using geometric properties of the wave itself. We consider traveling waves for a generalized FitzHugh-Nagumo equation to accomplish both of these goals. The timescale separation in this problem is key in the calculation of the Maslov index. (Received January 05, 2017)