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**Stephane Lafortune\*** (lafortunes@cofc.edu), Department of Mathematics, College of Charleston, Robert Scott Small Building / Room 339, Charleston, SC 29424. *Stability analysis of persisting periodic solutions to a Complex Ginzburg Landeau perturbation of the nonlinear Shrodinger equation.*

It was shown in [Cruz-Pacheco, Levermore, Luce, Phys. D 197 (2004)] that some periodic solutions to the nonlinear Shrodinger equation (NLS) persist when the NLS is subject to a perturbation leadingg to the Complex Ginzburg Landeau equation (CGL). In this presentation, I will show how the Evans function tecnique and Fredholm alternative methods can be used to study the linear stability of these persisting solutions. (Received September 25, 2006)