

1132-35-225

**Tristan Buckmaster, Pierre Germain** and **Zaher Hani\*** ([hani@math.gatech.edu](mailto:hani@math.gatech.edu)), Atlanta, GA 30332, and **Jalal Shatah**. *The nonlinear Schrodinger equation on large domains.*

In this talk, we will be mainly concerned with the following question: Suppose we consider a nonlinear dispersive or wave equation on a large domain of characteristic size  $L$ : What is the effective dynamics when  $L$  is very large? This question is relevant for equations that are naturally posed on large domains (like water waves on an ocean), and in turbulence theories for dispersive equations. We will discuss several recent results, obtained in collaboration with Tristan Buckmaster, Pierre Germain, and Jalal Shatah (all at Courant Institute, NYU), that are aimed at addressing the above question for the nonlinear Schrodinger equation. (Received July 23, 2017)