

1081-35-400

Milena Stanislavova* (stanis@math.ku.edu), University of Kansas, 405 Snow Hall, 1460 Jayhawk Blvd, Lawrence, KS 66045, and **Atanas Stefanov** and **S. Hakkaev**. *Linear Stability Analysis for Periodic Traveling Waves of the Boussinesq Equation and the KGZ System*.

We study the linear stability of spatially periodic waves for the Boussinesq equation (for the quadratic and cubic models) and the Klein-Gordon-Zakharov system. For a wide class of solutions, we completely and explicitly characterize their linear stability (instability respectively), when the perturbations are taken with the same period. In particular, our results allow us to completely recover the linear stability theorems for the whole line case. (Received February 14, 2012)