On the stability of solitary wave solutions and the Evans function technique

Sergij Skurativskyi Institute of Geophysics of the NAS of Ukraine

Abstract. The presentation deals with the application of Evans function technique to the stability problem of solitary wave solutions to evolutionary equations and, in particular, to the generalized FHN equation. Peculiarities of numerical procedure for the Evans function construction will be discussed. The numerical calculation of real-valued Evans function for gFHN equation is shown in more detail.