Analysis Seminar

Traveling Wave Solutions of the Fractional Kadomtsev-Petviashvili Equation

By

Handan Borluk
(Özyeğin University)

Abstract: In this talk, I will introduce the fractional Korteweg-de Vries equation and discuss the stability of its solitary wave solutions under the effect of weak transverse perturbations. The results are obtained analytically and supported by numerical experiments in the case of strong surface tension, i.e., the KP-I equation. For the KP-II equation, where surface tension is weak, we provide numerical evidence.
I will also present existence and nonexistence results for fully localized solitary wave solutions and obtain these solutions numerically.

Date: April 14 Tuesday
Time: 14:00-15:00, GMT+3
Place: ZOOM

To request the event link, please send a message to goncha@fen.bilkent.edu.tr