

Abstract Submitted
for the DFD19 Meeting of
The American Physical Society

Traveling-Wave Solutions of Two BiDirectional Whitham Equations SALVATORE CALATOLA-YOUNG, JOHN CARTER, Seattle University — Following the work of Carter & Rozman (2019), we study traveling wave solutions of two versions of the bidirectional Whitham equation. These equations are extensions of Boussinesq-type models that enable the phase velocities to match those of the Euler equations. We study the systems introduced by Hur & Pandey (HP) (2018) and Aceves-Sanchez et al (2013). We compute families of periodic traveling wave solutions to the HP equation. Our goal is to compare the traveling-wave solutions of both equations to gain further understanding of the differences between them.

Salvatore Calatola-Young
Seattle University

Date submitted: 01 Aug 2019

Electronic form version 1.4