

Abstract Submitted
for the DFD10 Meeting of
The American Physical Society

Rotating Solitary Wave during Liquid Drainage MOHAMED FAYED, Concordia University, HAMID AIT ABDERRAHMANE, McGill University, GEORGIOS H. VATISTAS, HOI DICK NG, Concordia University — This work reports on the observation of a rotating solitary wave during liquid drainage from a cylindrical reservoir when shallow water conditions are reached. Using results obtained from a high-speed camera and image processing techniques, we discuss the mechanism leading to the formation of the solitary wave; and we examine its shape and speed as it propagates in two different cases, variable and constant water depths. The results were also compared to the KdV theory.

Hoi Dick Ng
Concordia University

Date submitted: 28 Jul 2010

Electronic form version 1.4