

28th Southeastern-Atlantic Regional Conference on Differential Equations, October 10–11,  
2008, University of Arkansas at Little Rock, Little Rock Arkansas, USA

**A MODEL FOR SUBMARINE AVALANCHES OVER ERODIBLE  
BED.**

LONG LE

Submarine avalanches and landslides not only participate in the constant change of the sea floor but also represent a threat to the undersea inhabitants and human facilities. When studying submarine avalanches, one can not neglect the effect of erosion. Because the surface of the ocean bed is fluidized, erosion occurs more easily. We will present a one-dimensional Savage-Hutter model of geophysical mass flow to describe submarine avalanches which takes erosion into account.

UNIVERSITY OF CENTRAL ARKANSAS, MATHEMATICS DEPARTMENT  
*E-mail address:* longl@uca.edu