1006-70-11 **Florin Vasile Badiu*** (`badiu@uta.edu`), Department of Mathematics, University of Texas at Arlington, 411 S Nedderman Dr, Arlington, TX 76019, **Jianzjong Su** (`su@uta.edu`), Department of Mathematics, University of Texas at Arlington, and **Hua Shan** (`hshan@uta.edu`), Department of Mathematics, University of Texas at Arlington. *An Analysis of Clattering Impacts of a Falling Rod.*

The successions of clattering sequence of a rod dropping to the floor can be modeled to find out the shock response to it. This talk deals with both analytical and numerical analysis of multiple impacts of a two dimensional rod. The model is described by a system of ordinary differential equations, with a classical contact problem. In this analysis we will compare the case in which the effect of the gravity is neglected, versus the one where the gravity is considered. This problem can further provide useful information in cases like the study of the impact on the interior components of an electronic device that drops, having the above result as an input. (Received December 09, 2004)