

**Sabeur Mansouri (Monastir)**

**Stability for a flexible structure with dynamic delayed boundary conditions**

**Abstract.** In this talk, we will present some obtained results concerning the stability analysis of a flexible structure with dynamic delayed boundary conditions under the effect of different types of internal and/or boundary damping mechanisms. The system is composed of three parts: a cart (motorized platform), a flexible cable, and a load mass attached to the lower part of the cable. This situation leads to a hybrid system as a mathematical model for the cable dynamics: one partial differential equation coupled to two ordinary differential equations. This talk is based on some findings in collaboration with B. Chentouf.