

## Sabeur Mansouri (University of Monastir)

**Title:** Exponential stability of the rotating disk-beam system.

**Abstract:** This presentation investigates the stabilization of a nonlinear rotating disk–beam system subject to delayed boundary control and infinite memory effects. The control law incorporates nonclassical terms designed to compensate for these effects, leading to a nonstandard framework. Under suitable assumptions on the system’s physical parameters and the memory kernel, we first establish the well-posedness of the problem and then prove the exponential stability of the system.