

**RECENT RESULTS IN VISCOELASTIC AND THERMOELASTIC TIMOSHENKO BEAM MODELS**

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ABSTRACT. In this talk we first present a study on some constitutive laws in thermoelasticity and viscoelasticity, by following the classical works (3), (6)-(8). Then, we provide a consistent mathematical deduction for thermoelastic and viscoelastic problems with coupling on the two forces of the classical Timoshenko system, namely, the *shear force* and the *bending moment*, see e.g. (1)-(2). After that, we finally consider a thermo-viscoelastic system where the memory and temperature components are taken into account. In this way, we prove a new stability result, differently of those achieved in (4)-(5), see also (9).

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