

## **A large deformation, viscoelastic, thin rod model**

We present a Cosserat-based three-dimensional to one-dimensional reduction of the viscoelastic finite strain model introduced by P. Neff, in the case of a thin rod. This reduced model is a coupled minimization/evolution problem satisfying material frame indifference. We prove the existence and uniqueness of the solution of the reduced coupled problem and present a few numerical simulations.

This is joint work with J. Beyrouthy.