**Modeling and simulation of highly flexible slender structures**

While highly flexible slender structures are widely used in various industrial applications, the development of simulation codes based on beam-type models still raises many issues, both in terms of modeling and in terms of numerical time integration.

Regarding modeling, the following issues are considered:

* development of appropriate nonlinear beam models,
* taking into account of complex internal structure (multimaterial, multi-wire) of the considered slender structures responsible for non-linear and hysteretic behavior,
* interactions of these slender structures with their environment (e.g. frictional contact, etc).

Regarding numerical methods, the following issues are considered:

* geometric methods for time integration,
* Lie group methods,
* contact formulations for nonlinear beams.

The goal of this mini-symposium is to present the latest advances on these issues.