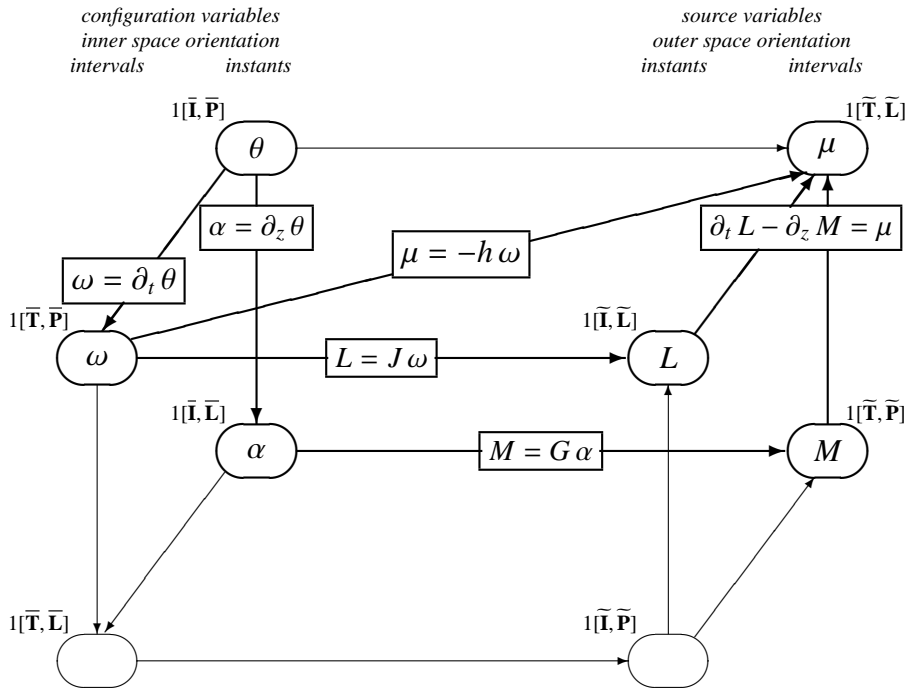


Torsional Vibrations of Rods

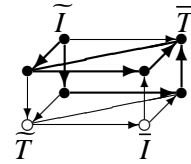


fundamental equation

$$J \frac{\partial^2 \theta}{\partial t^2} - G \frac{\partial^2 \theta}{\partial z^2} = -h \frac{\partial \theta}{\partial t}$$

- | | |
|----------------------------|--------------------------------------|
| θ angle of torsion | μ body couple for unit length |
| ω angular velocity | L angular momentum for unit length |
| α rotation gradient | M torque for unit length |

- J moment of inertia for unit length
 G modulus of rigidity
 h torsional damping coefficient



c'è una figura congelata da utilizzare nella spiegazione del diagramma.

Ref: Bz 108, Fig. 166; Moore, 49; Sharman, 79

inserito

VBd3-4 (ex SMD9-3); <http://discretephysics.dica.units.it>

see also VBd1, VBd4