

**Mercredi 30 Octobre 2019 à 11h**

Ecole Polytechnique  
**Amphithéâtre Becquerel**

**Michel LABOUESSE**

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## ***Biological ratchets in morphogenesis***

During embryonic development the fate of early cells are restricted and the shape of each generated tissue are progressively modified. Mechanical forces can achieve cell deformation, but they are opposed by the intrinsic elasticity of tissues. I will describe how a ratchet process can block transient states of cellular deformations to achieve important morphogenetic changes through small increments, and thereby create order from disorder.

*Reference :*

Lardennois et al, [An actin-based viscoplastic lock ensures progressive body-axis elongation](#), *Nature* (2019)