

Incorporating knowledge in large deformations

Barbara Gris

Abstract

Large deformations allow to define a metric on a shape space from a metric on a space of deformations. The evolution of a biological system (such as the growth of a leaf) can then be modelled by a geodesic for this metric. We developed a generic framework to incorporate biological priors in the set of considered deformations and in the corresponding metric. I will present the notion of deformation module on which relies this framework, and in particular the case of implicit modules which enable to incorporate elastic priors.