

Maximum Entropy Distributions for Image Synthesis under Statistical Constraints

vendredi 5 février 2021 14:00 (40 minutes)

The question of texture synthesis in image processing is a very challenging problem that can be stated as followed: given an exemplar image, sample a new image that has the same statistical features (empirical mean, empirical covariance, filter responses, neural network responses, etc.). Exponential models then naturally arise as distributions satisfying these constraints in expectation while being of maximum entropy. Now the parameters of these exponential models need to be estimated and samples have to be drawn. I will explain how these can be done simultaneously through the SOUL (Stochastic Optimization with Unadjusted Langevin) algorithm. This is based on a joint work with Valentin de Bortoli, Alain Durmus, Bruno Galerne and Arthur Leclaire.

Orateur: DESOLNEUX, Agnès (Centre Borelli)