ABSTRACT

In natural scene images, there are two ubiquitous classes of visual patterns. One consists of geometric shapes that can be represented by edges and regions. The other consists of stochastic textures that are often summarized by feature statistics. Although these two classes of patterns appear distinctively different, they are intrinsically connected by image scaling and should be treated in a unified framework. In this talk, I will present a theory that attempts to unify these two classes of patterns by the concepts of entropy and scale. The talk is based on Wu, Zhu, Guo (2005) and Liu, Li, Wu (2005).