Pattern Recognition-Based Hints to Computer Graphics Folks

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Abstract

Pattern Recognition (PR) has been addressing issues of learning, imprecise observations and descriptions, difficulties of reality modelling, etc. with various degrees of success since 1950s. Many of the PR methods are used in Computer Vision (CV) which is, in a certain sense, the complementary discipline to Computer Graphics (CG). The goal of CG can be seen as a synthesis of an information displayed to a human, whereas CV goal can be stated as analysis and modelling of uncertain real world observations. In the CESCG2006 talk, I like to outline principal problems PR has while dealing with images. The main issue is how the inherent structure of images can be expressed and treated by mathematics of uncertainty.