

Andrew Blake Abstract

Abstract:

Markov Chains, including Autoregressive and Discrete-state models, have been used in Machine vision for more than twenty years. In fact spatial Markov models have been a topic of interest in vision for an even longer period. The spatial models, beginning with the Ising model from solid state physics, have evolved steadily in that time, as have the estimation algorithms, including mean-field, belief propagation, and graph cut. These influential ideas will be reviewed in the lecture. Finally an example will be given that brings together spatial and temporal Markov model for automatic analysis of video.