STATIC AND DYNAMIC FEATURE−BASED VISUAL ATTENTION MODEL: COMPARAISON WITH HUMAN JUDGMENT (TueAmOR1)

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Abstract :

In this paper, a novel bottom−up visual attention model is proposed. By using static and dynamic features, we determine salient areas in video scenes. The model is characterized by the fusion of spatial information and moving object detection. The static model, inspired by the human system, is achieved by a retinal filtering followed by a cortical decomposition. The dynamic model is carried out by an estimation and a compensation of camera motion. Although several approaches to visual attention were developed in various applications, few compared their model to human perception. A psychophysical experiment is then presented to compare our model with human perception and to validate it. The results provide a quantitative analysis and show the efficiency of this approach.

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