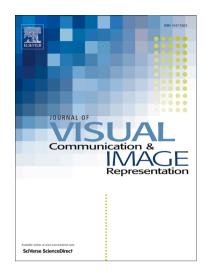
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Salient object detection via boosting object-level distinctiveness and saliency refinement

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Abstract

Many salient object detection approaches share the common drawback that they cannot uniformly highlight heterogeneous regions of salient objects, and thus, parts of the salient objects are not discriminated from background regions in a saliency map. In this paper, we focus on this drawback and accordingly propose a novel algorithm that more uniformly highlights the entire salient object as compared to many approaches. Our method consists of two stages: boosting the object-level distinctiveness and saliency refinement. In the first stage, a coarse object-level saliency map is generated based on boosting the distinctiveness of the object proposals in the test images, using a set of object-level features and the Modest AdaBoost algorithm. In the second stage, several saliency refinement steps are executed to obtain a final saliency map in which the boundaries of salient objects are preserved. Quantitative and qualitative comparisons with state-of-the-art approaches demonstrate the superior performance of our approach.

Keywords: Saliency, salient object detection, object-level distinctiveness, boosting algorithm, saliency refinement

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