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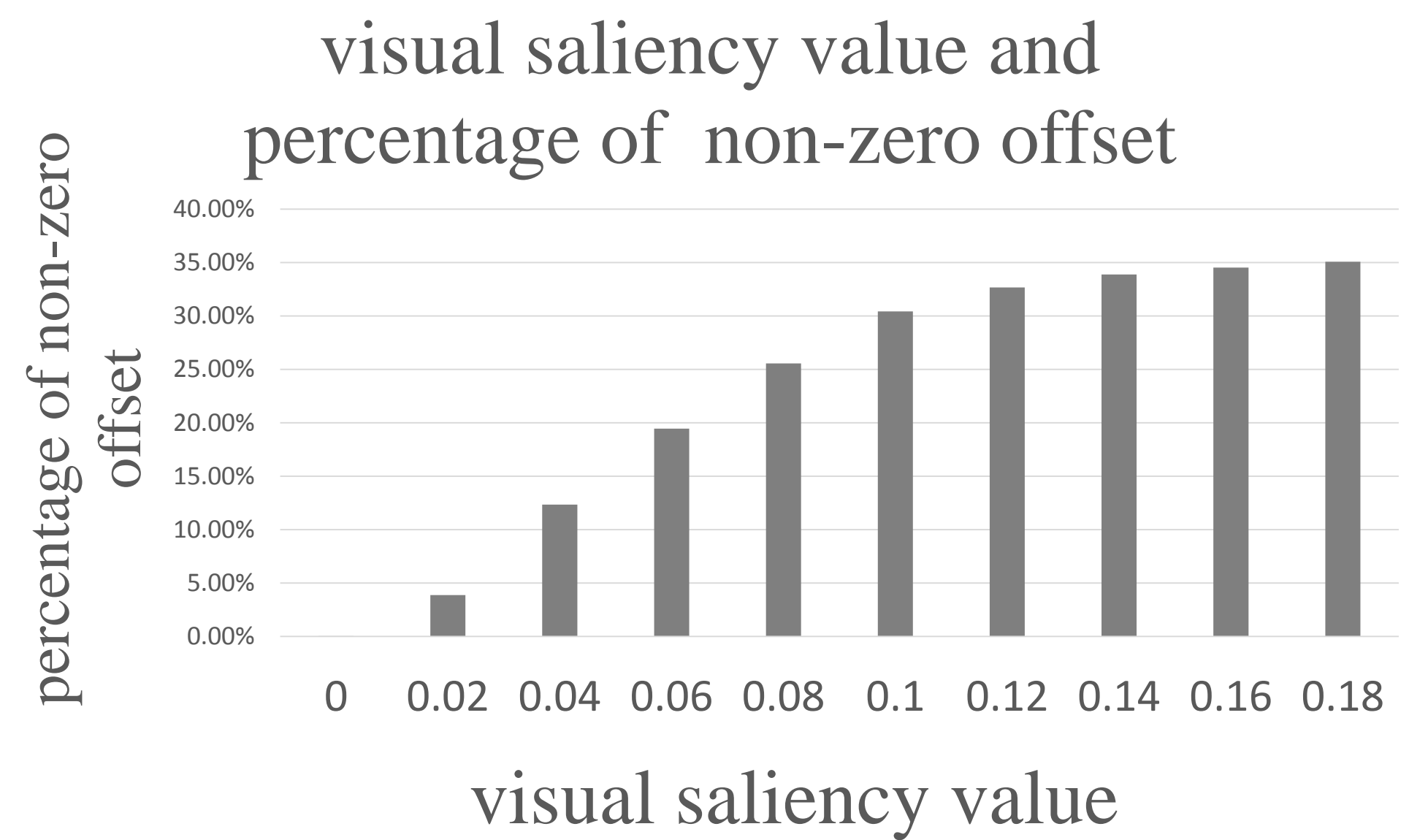
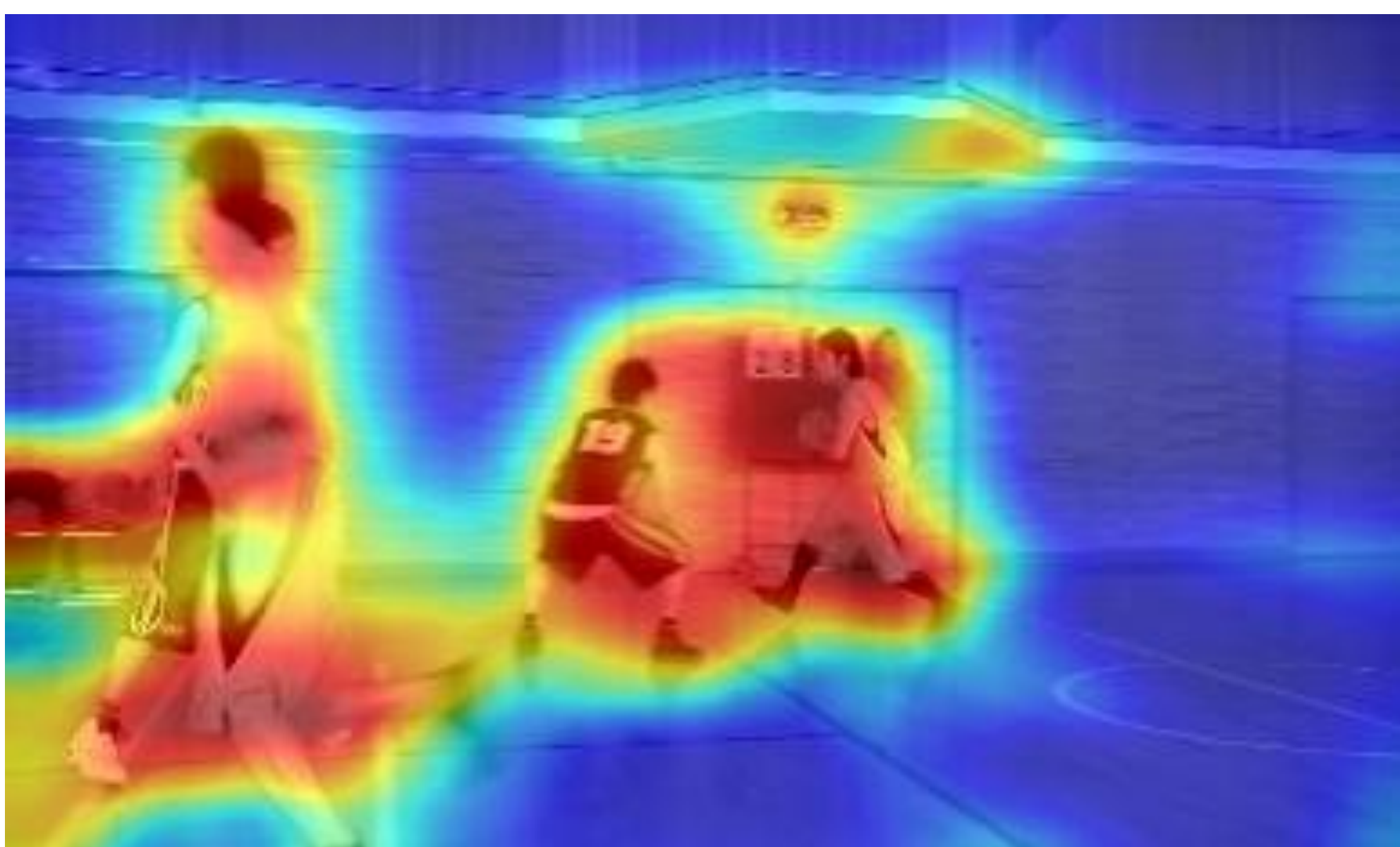
Introduction

Sample Adaptive Offset (SAO) is a new coding tool of High Efficiency Video Coding (HEVC). It is an in-loop filter to reduce ringing effect and the distortion after the process of prediction coding and quantization. SAO can produce better coding efficiency and improve the quality of the videos.

Methods

- Visual saliency map
- Weighted visual saliency for each pixel
- Averaged visual saliency for each CTU
- Judge by threshold: calculate sample adaptive offset or skip it
- Entropy coding

Graphics / Images



Conclusions

In this paper, a relationship between SAO and visual saliency feature of the coding units is established by analyzing the SAO processing. Instead of calculate the SAO parameter one by one, the necessity will be attained by their visual saliency maps. The proposed method reduces SAO encoding time to average 27.02% only with trivial BD_rate and PSNR loss.