Learning to Cluster for Rendering with Many Lights Supplemental Document

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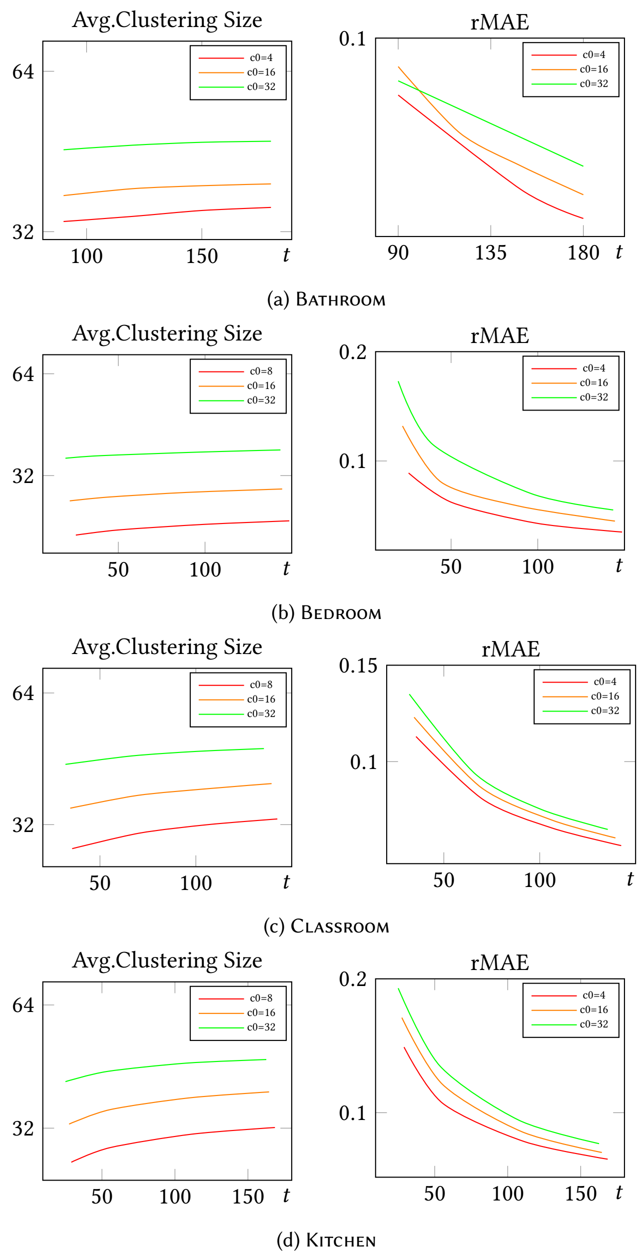

Fig. 1. We compare the evolution of average clustering size and relative mean absolute error (rMAE) for our method with different initial cut sizes using (a) the Bathroom scene, (b) the Bedroom scene, (c) the Classroom scene, and (d) the Kitchen scene. In the experiment, we constrain the maximum cut size to be 64. With a smaller initial cut size, our method achieves a lower error while avoiding unnecessary clustering.

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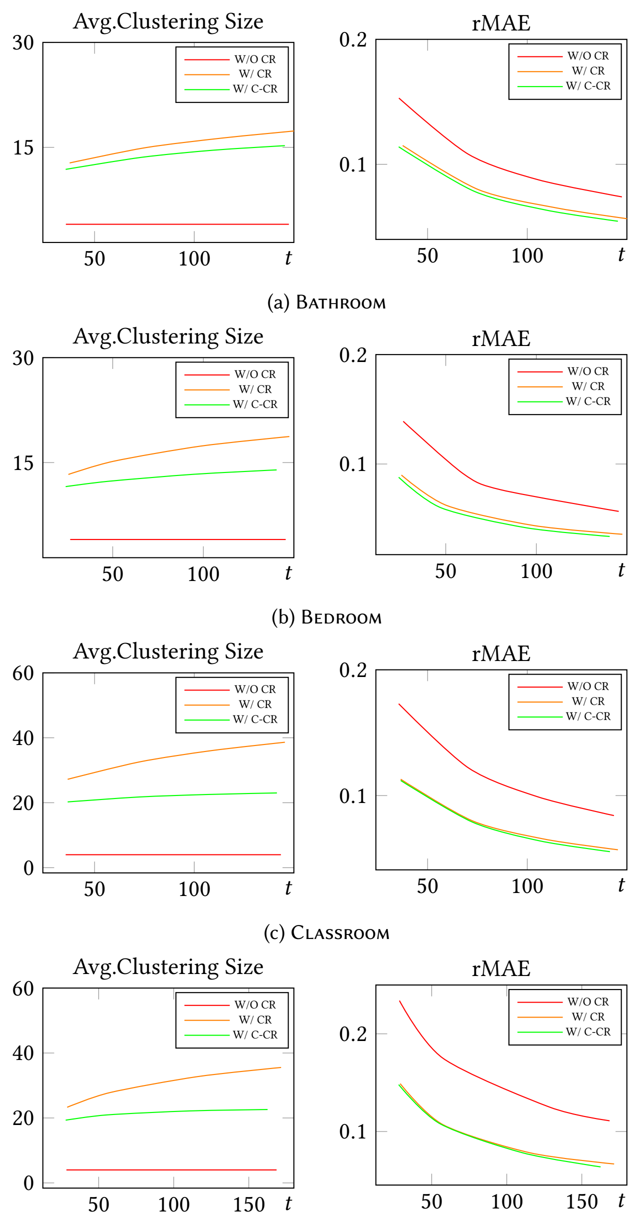

(a) Bathroom

(b) Bedroom

(c) Classroom

(d) Kitchen

Fig. 2. We compare the evolution of average clustering size and relative mean absolute error (rMAE) for our method without cluster refinement (W/O CR), with cluster refinement (W/ CR), and with the constrained cluster refinement (W/ C-CR), where we stop splitting when there is no refinement for a while or when we reach a maximum cut size. We compare them using (a) the Bathroom scene, (b) the Bedroom scene, (c) the Classroom scene, and (d) the Kitchen scene. We start from a light clustering with $|C_0|= 4$. We set the maximum cut size as 32 and $\Gamma = 128$. The cluster refinement indeed leads to lower error, while the constraints avoid unnecessary clustering and also deliver slightly lower error.