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**Abstract**

We describe a new method to find and cluster recurrent key-places in a movie. It consists of an unsupervised classification of shots that are taking place in the same physical location (key-place). Our approach is based on finding links between key-frames belonging to a same key-place. We use a probabilistic latent space model over the possible match points between the image sets. This allows extracting significant groups of local descriptor matches that may represent characteristic elements of a key-place. A preliminary test on a full-length movie gives a recognition rate of 78.0% on the key-places clustering.

**Keywords** : Scene categorization, scene matching, content-based indexing, descriptive video, video processing.