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Image Moment Invariants as Local Features for Content Based Image Retrieval using the Bag-of-Visual-Words Model

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Abstract:	<p>This paper presents an image retrieval framework that uses affine image moment invariants as descriptors of local image areas. Detailed feature vectors are generated by feeding the produced moments into a Bag-of-Visual-Words representation. Image moment invariants have been selected for their compact representation of image areas as well as due to their ability to remain unchanged under affine image transformations. Three different setups were examined in order to evaluate and discuss the overall approach. The retrieval results are promising compared with other widely used local descriptors, allowing the proposed framework to serve as a reference point for future image moment local descriptors applied to the general task of content based image retrieval.</p> <p>Keywords</p> <p>Bag of visual words</p> <p>Affine moment invariants</p> <p>Content based image retrieval</p>