ENHANCING CURVATURE SCALE SPACE FEATURES FOR ROBUST SHAPE CLASSIFICATION (ThuAmOR4)

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**Abstract:**

The curvature scale space (CSS) technique, which is also part of the MPEG-7 standard is a robust method to describe complex shapes. The central idea is to analyze the curvature of a shape and derive features from inflection points. A major drawback of the CSS method is its poor representation of convex segments: Convex objects cannot be represented at all due to missing inflection points. We have extended the CSS approach to generate feature points for concave and convex segments of a shape. This generic approach is applicable to arbitrary objects. In the experimental results, we evaluate as a comprehensive example the automatic recognition of characters in images and videos.