



A REVIEW: DIFFERENT TYPES OF SIMILARITY MEASURES

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Abstract

The subject of this paper is about image similarity measures. These measure provide a quantitative measure of the degree of match between two images, or image patches, A and B . Image similarity measures play an important role in many image fusion algorithms and applications including retrieval, classification, change detection, quality evaluation and registration. For the sake of concreteness we shall concentrate on intensity based similarity measures. Comparing two input images, or image patches, is a fundamental thing in many image processing algorithms. A meaningful image similarity measure has two components:

- (i) A transformation T . This extracts the characteristics of an input image and represents it as multi-dimensional feature vector;
- (ii) a distance measure D .

Similarity measures play important role for a content-based image retrieval (CBIR) system.

Keywords and phrases: image similarity, Minkowski distance, Bhattacharyya distance, chi-square measures, Bhat-Nayar measures, hausdroff distance etc.

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