

[Rubner, Yossi](#); [Puzicha, Jan](#); [Tomasi, Carlo](#); [Buhmann, Joachim M.](#)

Empirical evaluation of dissimilarity measures for color and texture. (English) Zbl 1021.68787
Comput. Vis. Image Underst. 84, No. 1, 25-43 (2001).

Summary: This paper empirically compares nine families of image dissimilarity measures that are based on distributions of color and texture features summarizing over 1000 CPU hours of computational experiments. Ground truth is collected via a novel random sampling scheme for color, and by an image partitioning method for texture. Quantitative performance evaluations are given for classification, image retrieval, and segmentation tasks, and for a wide variety of dissimilarity measure parameters. It is demonstrated how the selection of a measure, based on large scale evaluation, substantially improves the quality of classification, retrieval, and unsupervised segmentation of color and texture images.

MSC:

[68U99](#) Computing methodologies and applications
[68T45](#) Machine vision and scene understanding
[68U10](#) Computing methodologies for image processing

Cited in **14** Documents

Software:

[QBIC](#)

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