

Fuzzy metrics and color image filtering

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Abstract

Occasionally, advances in the fuzzy metric theory are hindered because only a few examples of fuzzy metrics are found in the papers relative to this topic and so its application in Engineering methods is limited. To overcome both inconveniences, in this paper we provide new examples of fuzzy metrics. Also we show how to apply fuzzy metrics in engineering methods. In this sense we evaluate the proximity of two pixels of a color image by means of a fuzzy metric which combines two fuzzy metrics associated to two distinct proximity criteria, respectively. As a result, the image processing filter built works better than other classical ones.