



## SEGMENTATION EVALUATION BY FUSION WITH A GENETIC ALGORITHM (MonPmOR2)

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★ **Abstract :** The goal of this work is to be able to quantify the quality of a segmentation result without any a priori knowledge. We propose in this article to fusion different unsupervised evaluation criteria. In order to identify the best criteria to fusion, we compared six unsupervised ones on a database composed of synthetic gray-level images. Vinet's measure is used as an objective function to compare the behavior of the different criteria. A new criterion is derived by linearly combining the best ones. The linear coefficients are determined by maximizing the correlation factor with the Vinet's measure by a genetic algorithm. We present in this article some experimental results of evaluation of natural gray-level images.