



## Performance of a New Method of Multicomponent Images Segmentation in the Presence of Noise

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Résumé en anglais	<p>Any undesirable signal limiting to a degree or another the integrity and the intelligibility of a useful signal can be considered as noise. In the general rule, the good performance of a system is assured only if the level of power of the useful signal exceeds by several orders of magnitude that of the noise (signal to noise of a several tens of decibels). However certain elaborate methods of treatment allow working with very low signal to noise ratio in an optimal way any a priori knowledge available on the signal useful to interpret. In this work, we evaluate the robustness of the noise on a new method of multicomponent image segmentation developed recently. Two types of additional noises are considered, which are the Gaussian noise and the uniform noise, with varying correlation between the different components (or planes) of the image. Quantitative results show the influence of the noise level on the segmentation method.</p>
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