A Comparison of Unmixing Algorithms for Hyperspectral Imagery

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In this poster, we present an experimental comparison of unmixing using the constrained positive matrix factorization (cPMF) developed by researchers at CenSSIS with standard unmixing algorithms such as SMACC and MaxD that retrieve endmembers from the image. Experimental results using AISA hyperspectral images collected over Vieques Island in Puerto Rico are presented. The retrieved signatures have similar spectral features but the slight differences in the spectra retrieved by cPMF, in most cases, resulted in abundance maps that better describe the expected spatial distribution of the endmembers. Field work, ancillary data, and expert knowledge of the area are used to evaluate the results.

REFERENCES


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