

Title: Hyperspectral Remote Sensing System Performance Analysis

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Abstract:

For nearly thirty years now, airborne and satellite hyperspectral imaging sensors have been used to collect high spatial resolution (1-30 meter) imagery of the earth's surface in hundreds of co-registered, contiguous spectral channels. These data have been shown to enable the detection of objects smaller than a pixel due to the spectral information present. However, it is not always obvious beforehand if a given object will be detectable in a given scene, as performance has been observed to depend on many factors including illumination conditions, scene spectral complexity, target variability, sensor artifacts, as well as algorithm variations.

Our research has been exploring ways to predict and assess performance of hyperspectral subpixel detection for the past fifteen years. Methods have included analytical modeling tools, empirical blind t

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His research interests are in the modeling and analysis of remote
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He is currently serving on the Administrative Committee of the IEEE
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