DEVELOPING THE IEEE P4001 STANDARD FOR CHARACTERISATION AND CALIBRATION OF HYPERSPECTRAL IMAGING DEVICES

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Résumé

Hyperspectral imaging has over the last thirty years developed into a power analytical tool for the determination of chemical and other properties. As a result, there has been strong development in both the design of spectral cameras and in the applications for which they are used. This has led to a diversity in the way fundamental instrument performances are characterized, reported, and understood. As a result, this makes it difficult to compare instruments for application- specific needs, or for commercial market needs.

In 2018, the IEEE P4001 group was formed to facilitate the development of a standard to unify the use of terminology, spectral camera characterization methods, and the meta-data structures that are needed to represent spectral camera performance. This talk provides an update on the work to date, and the significant progress made towards the first draft of the standard which wil be published later this year.

Index Terms- hyperspectral, imaging spectroscopy, spectral imaging, pushbroom, spectral scanning, spatio- scanning, snapshot, IEEE, P4001, terminology, data structures, characterization

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