

PANSHARPENING -- RELATING QUANTITATIVE QUALITY MEASURES TO IMPACT ON RESULTS OF SUBSEQUENT PROCESSING STEPS

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ABSTRACT:

Since the advent of high-resolution satellite sensors the pansharpening of multispectral data using the higher spatial information of the panchromatic channel became a prominent topic in the data fusion community. Besides the development of new algorithms also the evaluation of approaches has been addressed in recent years leading e.g. to competitions as by IGARSS (Alparone et al., 2007) using visual inspection and quantitative measures for quality assessment. (Zhang, 2008) questioned the significance of such quantitative measures to evaluate the impact of pansharpening on subsequent processing like classification using an example based on linearly transformed data. This was the motivation for our investigations addressing the question, if quantitative evaluation criteria for pansharpening can reflect its impact on subsequent processing.

TOPIC: Data fusion and data assimilation

ALTERNATIVE TOPIC: Data fusion and data assimilation