

## Spectral Imaging and Applications

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Many algorithms are taken from grey-value image processing to deal with color as additional visual feature for many purposes, however exceptions have to be regarded. Exploitation of spectral information beyond color needs a generalized view onto the underlying principles extending three color components up to hundred or more spectral channels in different spectral bands. Although still a large potential for re-use of those methods and algorithms is given, spectral images need particular treatment. This is demonstrated in applications as waste sorting, medical imaging and measuring of bio-chemicals for the entire processing chain from calibration to classification due to the nature of imaging by dedicated sensors in particular spectral ranges.