

Toward Subtle Change Detection and Quantification in Magnetic Resonance Neuroimaging

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Abstract : One of the important open problems in the field of medical image processing is detection and quantification of small changes. In this poster, we try to investigate that, how the algebraic decomposition techniques can be used for semiautomatically detecting and quantifying subtle changes in Magnetic Resonance (MR) neuroimaging volumes. We mostly focus on the low-rank values of the matrices achieved from decomposing MR image pairs during a period of time. Besides, a skillful neuroradiologist will help the algorithm to distinguish between noises and small changes.

Keywords : magnetic resonance neuroimaging, subtle change detection and quantification, algebraic decomposition, basis functions

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