



MULTIPARAMETRIC SMOOTHING BASED ON MEAN SHIFT PROCEDURE FOR ULTRASOUND DATA SEGMENTATION (MonPmOR10)



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✳ Abstract :

Segmentation of ultrasound data is improved when using multi-parametric approach. In this paper we propose the use of Multi-Parametric Mean Shift procedure (MPMS). Two derived processes are described: MPMS smoothing which achieves a multi-parametric filtering in the spatial-range domain and MPMS segmentation which takes benefit of this filtering for segmenting the multidimensional data. MPMS segmentation is particularly attractive, since it achieves an unsupervised segmentation. These methods were positively tested on three sets of simulated ultrasonic data, representative of various scatterers densities and also various scattering conditions.