

Title: Adaptive Background Normalization Algorithm for Noise Resilient in Time-frequency Map

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Abstract—Since conventional background normalization approaches are sensitive to the manual setting parameters such as the length of normalization window and normalization threshold, an adaptive algorithm is proposed without any preset parameters. The algorithm is validated by experimental data for the resilience to the noise in the time-frequency map, with acceptable increase on the computational burden.

Keywords—adaptive background normalization, noise resilient, time-frequency map.