

Title (en)

APPARATUS AND METHOD FOR GENERATING NOISE ESTIMATES

Title (de)

VORRICHTUNG UND VERFAHREN ZUR ERZEUGUNG VON RAUSCHSCHÄTZUNGEN

Title (fr)

APPAREIL ET PROCÉDÉ PERMETTANT DE GÉNÉRER DES ESTIMATIONS DE BRUIT

Publication

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Application

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Abstract (en)

[origin: WO2018068846A1] A noise estimator is suitable for generating an overall noise estimate for an audio signal. The audio signal is representative of a noise signal and comprises a plurality of spectral components. The overall noise estimate comprises, for each spectral component in the audio signal, a respective spectral noise estimate. The noise estimator includes an estimator that is configured to generate the overall noise estimate. The noise estimator is configured to generate this overall estimate by applying a first estimation technique to the audio signal to generate spectral noise estimates for spectral components of the audio signal that are below a cut-off frequency. It is also configured to apply a second estimation technique to the audio signal to generate spectral noise estimates for spectral components of the audio signal that are above the cut-off frequency. The estimator is also configured to form the overall noise estimate to comprise, for spectral components below the cut-off frequency, the spectral noise estimates generated using the first estimation technique and, for spectral components above the cut-off frequency, the spectral noise estimates generated using the second estimation technique. The noise estimator also comprises an adaptation unit that is configured to adjust the cut-off frequency so as to account for changes in coherence of the noise signal that are reflected in the audio signal. Adjusting the cut-off frequency to account for changes in those coherence properties over time improves the accuracy of the resulting overall noise estimate. A fixed cut-off frequency would result in a non-optimal estimation technique being used for some frequencies at least some of the time, whereas adjusting the cut-off frequency helps to ensure that the more appropriate of the first and second estimation techniques is always used.

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