

数据库、信号与信息处理

低信噪比下基于功率谱熵的语音端点检测算法

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摘要 为了解决短波通信中语音检测的问题, 针对短波语音信噪比低, 噪声复杂的特点, 对幅度谱熵算法进行了修正, 选取功率谱熵作为VAD特征, 加入谱熵平滑和hangover设计, 研究了基于功率谱熵的语音端点检测算法。实验证明, 算法对几种典型的短波语音均有比较理想的性能。

关键词 [语音信号处理](#) [谱熵](#) [语音端点检测](#) [低信噪比](#)

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Power spectrum entropy based voice activity detection algorithm in low signal-to-noise ratio conditions

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Abstract

To resolve the problem of voice activity detection in radio communication, considering the characteristics of short wave radio speech has low signal-to-noise ratio and complex noise types, this paper presents a modified voice activity detection algorithm based on power spectrum entropy. The design of hangover and smoothness of power spectrum entropy are equipped to the algorithm. Several kinds of typical radio speech are used to evaluate the algorithm. Experimental results show that this algorithm manifests outstanding performance in radio communication environments.

Key words [speech signal processing](#) [power spectrum entropy](#) [voice activity detection](#) [low signal-to-noise ratio](#)

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