

TECHNOLOGY

Speech Discrimination Based on Multiscale Spectro-Temporal Modulations

OVERVIEW

Researchers at the University of Maryland have developed a content-based audio classification algorithm based on novel multiscale spectro-temporal modulation features inspired by cortical processing.

A potential use for the classification system is to discriminate speech from non-speech. Non-speech, for example, could consist of animal vocalizations, music, or environmental sounds. In head-to-head comparisons with two other state-of the-art approaches to discriminating between speech and non-speech, the multiscale spectro-temporal system performed significantly better.

These algorithms also have applications in audio and data retrieval, archival management, modern human-computer interfaces, and in the entertainment and security industries. The researchers are also working on developing algorithms to enhance speech in noisy environments using an auditory model.

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Additional Information

INSTITUTION

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PATENT STATUS

Not Filed

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CATEGORIES

Information Technology

EXTERNAL RESOURCES

• US Patent 7,505,902

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