Abstract

This paper presents a speaker recognition method which makes use of auditory features and polynomial classifier for speaker recognition. Auditory features based on an auditory periphery model extract significant speaker characteristics. Polynomial classifier has been used to accomplish speaker recognition task. Polynomial classifier has several advantages over the conventional classifiers such as computational scalability with the number of speakers, discriminative training allowing it to use out of class data and the statistical interpretation of scoring allowing it to combine with HMM and GMM. This approach achieves substantial performance improvement in a speaker identification task compared with state-of-the-art in a wide range of signal to noise conditions.

Reference


**Index Terms**

Computer Science  
Speech Processing

**Key words**

Auditory features  
Speaker recognition
Polynomial classifier