

图形、图像、模式识别

汉语语音识别中的区分性声调建模方法

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摘要 提出从特征提取参数、模型参数对隐马尔可夫声调模型进行区分型训练, 来提高声调识别率; 提出模型相关的权重对谱特征模型和声调模型的概率进行加权, 并根据最小音子错误区分性目标函数对权重进行训练, 来提高声调模型加入连续语音识别时的性能。声调识别实验表明区分性的声调模型训练以及特征提取方法显著提高了声调识别率。区分性模型权重训练能够在声调模型加入之后进一步连续语音识别系统的识别率。

关键词 [区分性训练](#) [声调建模](#) [汉语语音识别](#) [特征提取](#)

分类号

Tone modeling based on discriminative training for Mandarin speech recognition

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Abstract

To improve tone recognition accuracy, discriminative training in both feature and model parameters for hidden Markov model based tone modeling is proposed. When incorporating tone models into continuous speech recognition, discriminative model weight training is presented. Acoustic and tone model distributions are scaled by model dependent weights trained by the minimum phone error criterion. Experiments show tone recognition and large vocabulary continuous speech recognition accuracy can be considerably improved by the proposed methods.

Key words [discriminative training](#) [tone modeling](#) [Mandarin speech recognition](#) [feature extraction](#)

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