Abstract

Hidden Markov Models are widely used for modeling and predicting label sequences in ASR. In this paper, a game-theoretic approach for Hidden Markov Model training that is superior in terms of time-complexity over Baum-Welch algorithm is introduced. Furthermore, accuracy of recognition using proposed algorithm is comparable with that of Baum-Welch algorithm.

**Index Terms**

Computer Science  
Algorithms

**Keywords**

HMM Training  
Phoneme Recognition  
Baum-Welch Algorithm