

## **Acoustic modelling of Sepedi affricates for ASR**

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### **ABSTRACT**

Automatic speech recognition (ASR) systems are increasingly being developed for under-resourced languages, especially for use in multilingual spoken dialogue systems. We investigate different approaches to the acoustic modelling of Sepedi affricates for ASR. We determine that it is possible to model various of these complex consonants as a sequence of much simpler sounds. This approach reduces the Sepedi phoneme inventory from 45 to 32, resulting in simpler dictionary development and transcription processes, as well as more accurate acoustic modelling.

DOI=10.1145/1899503.1899552

<http://doi.acm.org/10.1145/1899503.1899552>