

[Home](#) > [Computational Processing of the Portuguese Language](#) > Conference paper

Acoustic Similarity Scores for Keyword Spotting

| Conference paper

| pp 48–58 | [Cite this conference paper](#)

[Save conference paper](#)

[View saved research](#) >



Computational Processing of the Portuguese Language

(PROPOR 2014)

[Arlindo Veiga](#), [Carla Lopes](#), [Luís Sá](#) & [Fernando Perdigão](#)

 Part of the book series: [Lecture Notes in Computer Science](#) ((LNAI, volume 8775))



 Included in the following conference series:
[International Conference on Computational Processing of the Portuguese Language](#)

 715 Accesses  5 Citations

Abstract

This paper presents a study on keyword spotting systems based on acoustic similarity between a filler model and keyword model. The ratio between the keyword model

likelihood and the generic (filler) model likelihood is used by the classifier to detect relevant peaks values that indicate keyword occurrences. We have changed the standard scheme of keyword spotting system to allow keyword detection in a single forward step. We propose a new log-likelihood ratio normalization to minimize the effect of word length on the classifier performance. Tests show the effectiveness of our normalization method against two other methods. Experiments were performed on continuous speech utterances of the Portuguese TECNOVOZ database (read sentences) with keywords of several lengths.

 This is a preview of subscription content, [log in via an institution](#)  to check access.

Access this chapter

Log in via an institution

Subscribe and save

 Springer+

from €37.37 /Month

Starting from 10 chapters or articles per month

Access and download chapters and articles from more than 300k books and 2,500 journals

Cancel anytime

[View plans](#) 

Buy Now

 Chapter

EUR 29.95

Price includes VAT (Portugal)

Available as PDF