



## CONFERENCIA MATEMÁTICA APLICADA

# “DISCOVERY OF REPEATED VOCAL PATTERNS IN POLYPHONIC AUDIO: A CASE STUDY ON FLAMENCO MUSIC”

**Aggelos Pikrakis**, University of Piraeus, Greece

COFLA Análisis Computacional de la Música Flamenca  
Proyecto de excelencia Junta de Andalucía(P12-TIC-1362)

**ABSTRACT:** In this talk we present a method for the discovery of repeated vocal patterns directly from music recordings. At a first stage, a voice detection algorithm provides a rough segmentation of the recording to vocal parts, based on which an estimate of the average pattern duration is computed. Then, a pattern detector which employs a sequence alignment algorithm is used to yield a ranking of pairs of matches of the detected voiced segments. At a last stage, a clustering algorithm produces the final repeated patterns. Our method was evaluated in the context of flamenco music for which symbolic metadata are very hard to produce, yielding very promising results.

**Fecha: Martes, 22 de Septiembre de 2015.**

**Hora: 12:00 h.**

**Lugar: Seminario del Dpto Matemática Aplicada II, ETSI.**