ACTIVE Semi-supervised and unsupervised segmentation and annotation of musical collections

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What is ACMus?

ACMus is a research project that brings together (ethno)musicologists and MIR researchers to analyze **Colombian** music from the **Andes** region

Key Information:

- Focus: Semi-supervised and unsupervised MIR methods.
- Music Data: Recordings of Andean Colombian music compiled in the Músicas Regionales





Archive in Medellín – Colombia.

 Partners: Fraunhofer IDMT (Germany), TU Ilmenau (Germany), Universidad de Antioquia (Colombia), Universidad Pontificia Bolivariana (Colombia).

Which topics are we looking at?

1. Ensemble Size Classification

GOAL: Develop methods to automatically detect the number of instruments playing in a given audio track. See preliminary results in [1].



3. Musical Scales and Modes

GOAL: Develop methods to better understand the use of scales and modes in music from the Colombian Andes. Use-case: musical traditions of the Colombian Caucan flutes which show particular tone/semitone distributions outside of equal temperament.

4. Speech/Music Discrimination & Characterization

GOAL: Develop methods to distinguish speech data from music data, and provide fine-grained classification labels such as instrumental music or vocal music [2].

2. Meter Analysis

GOAL: Develop methods to analyze the use of compound and simple meters in Colombian (*sesquialtera*) music from the Andes region.



Sesquialtera example

Combination of 3/4 and 6/8 rhythmic patterns

ACMUS-MIR: An annotated data set of Andean Colombian music [3]



ACMUS-MIR Rhythm set Instrumental format set Scale set



https://tinyurl.com/acmus-mir

Resources

REFERENCES

[1] Sascha Grollmisch, Estefanía Cano, Fernando Mora-Ángel, and Gustavo López Gil. Ensemble size classification in Colombian Andean string music recordings. In Proceedings of the 14th International Symposium of Computer Music Multidisciplinary Research CMMR. Marseille, France. October 2019.







[2] Estefanía Cano, Fernando Mora-Ángel, Gustavo López Gil, José Ricardo Zapata, and Antonio Escamilla. Singing voice, speech, or something in between. In Meinard Müller, Emilia Gómez, and Yi-Hsuan Yang, editors, Computational Methods for Melody and Voice Processing in Music Recordings (Dagstuhl Seminar 19052), volume 9, pages 125–177. Schloss Dagstuhl–Leibniz Zentrum fuer Informatik, Dagstuhl, Germany, 2019.

[3] Fernando Mora-Ángel, Gustavo A. López Gil, Estefanía Cano, & Sascha Grollmisch. (2019). ACMUS-MIR: An annotated data set of Andean Colombian music (Version 1.0) [Data set]. Zenodo. http://doi.org/10.5281/zenodo.3268961



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