



HAL
open science

Automatic music analysis and "Musée de l'Homme" sound archives

Josephine Simonnot

► **To cite this version:**

Josephine Simonnot. Automatic music analysis and "Musée de l'Homme" sound archives. Analytical Approaches To World Music, Jun 2021, Paris, France. 2021. halshs-03472999v1

HAL Id: halshs-03472999

<https://shs.hal.science/halshs-03472999v1>

Submitted on 9 Dec 2021 (v1), last revised 4 Apr 2022 (v2)

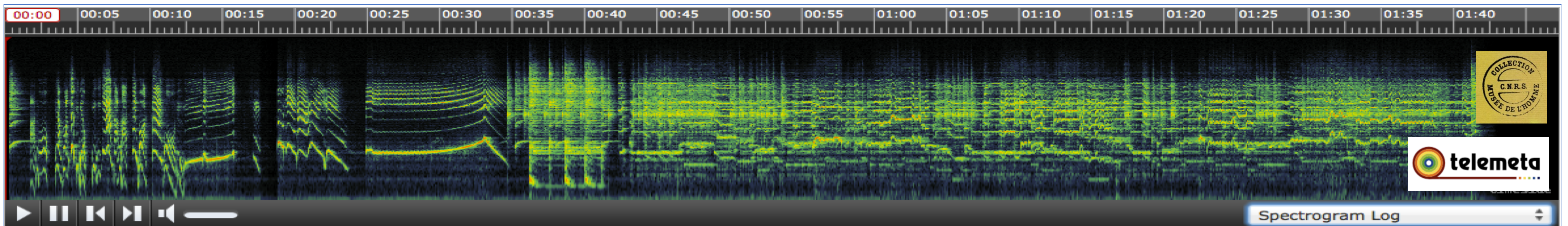
HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution - NonCommercial 4.0 International License

Automatic music analysis and "Musée de l'Homme" sound archives



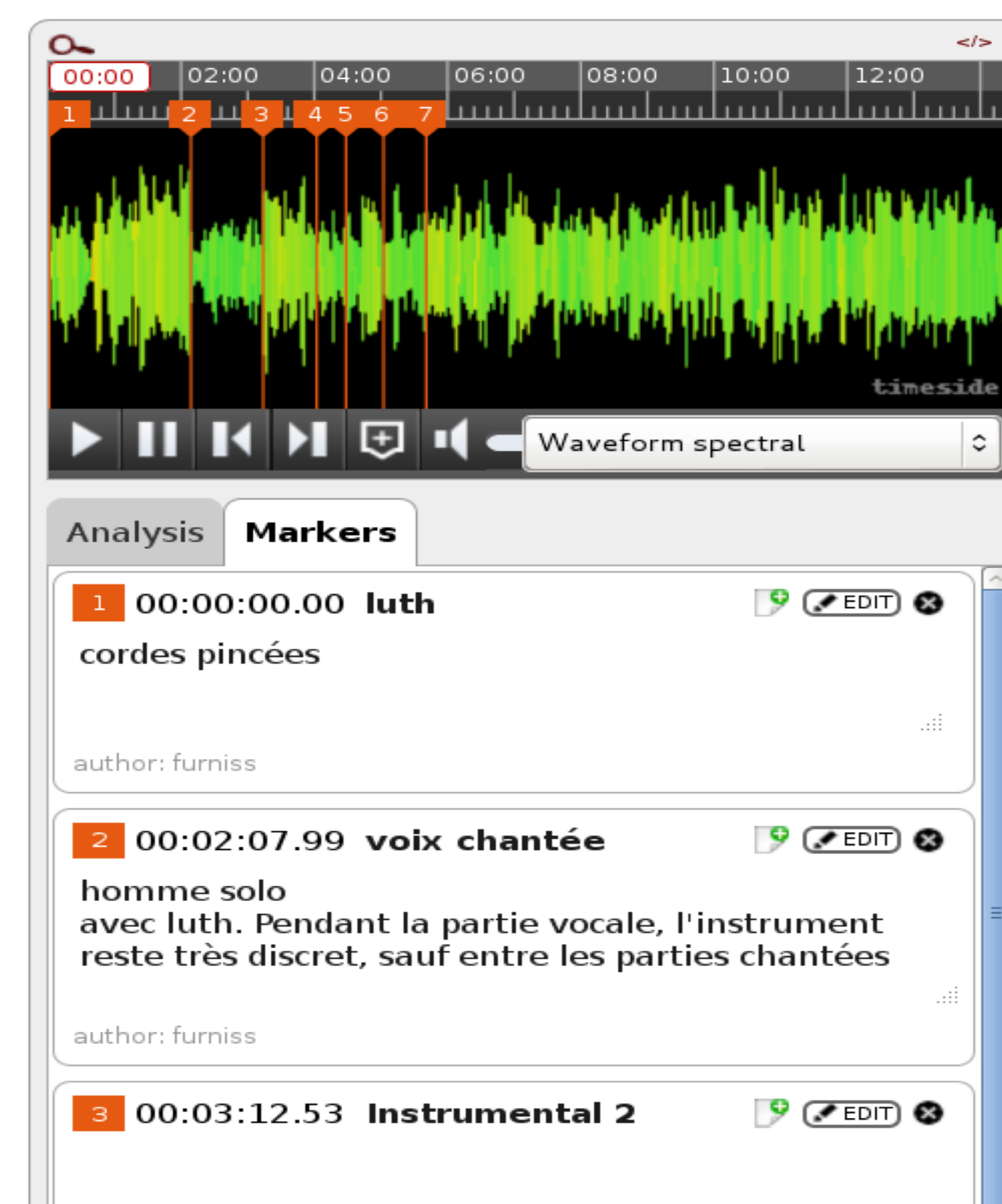
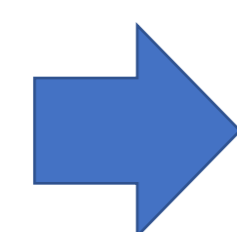
The **Musée de l'Homme** has collected folk music from all over the world for a century. Today, 55,000 sound files are available in a database on line and 30 000 are on free access streaming : <http://archives.crem-cnrs.fr/>

Managed by the French Research Center for Ethnomusicology (CREM), this database is available through Telemeta, an "open source" web platform, enabling audio transcoding, streaming, time-based indexing, visualization and analysis: <https://github.com/Parisson/Telemeta>

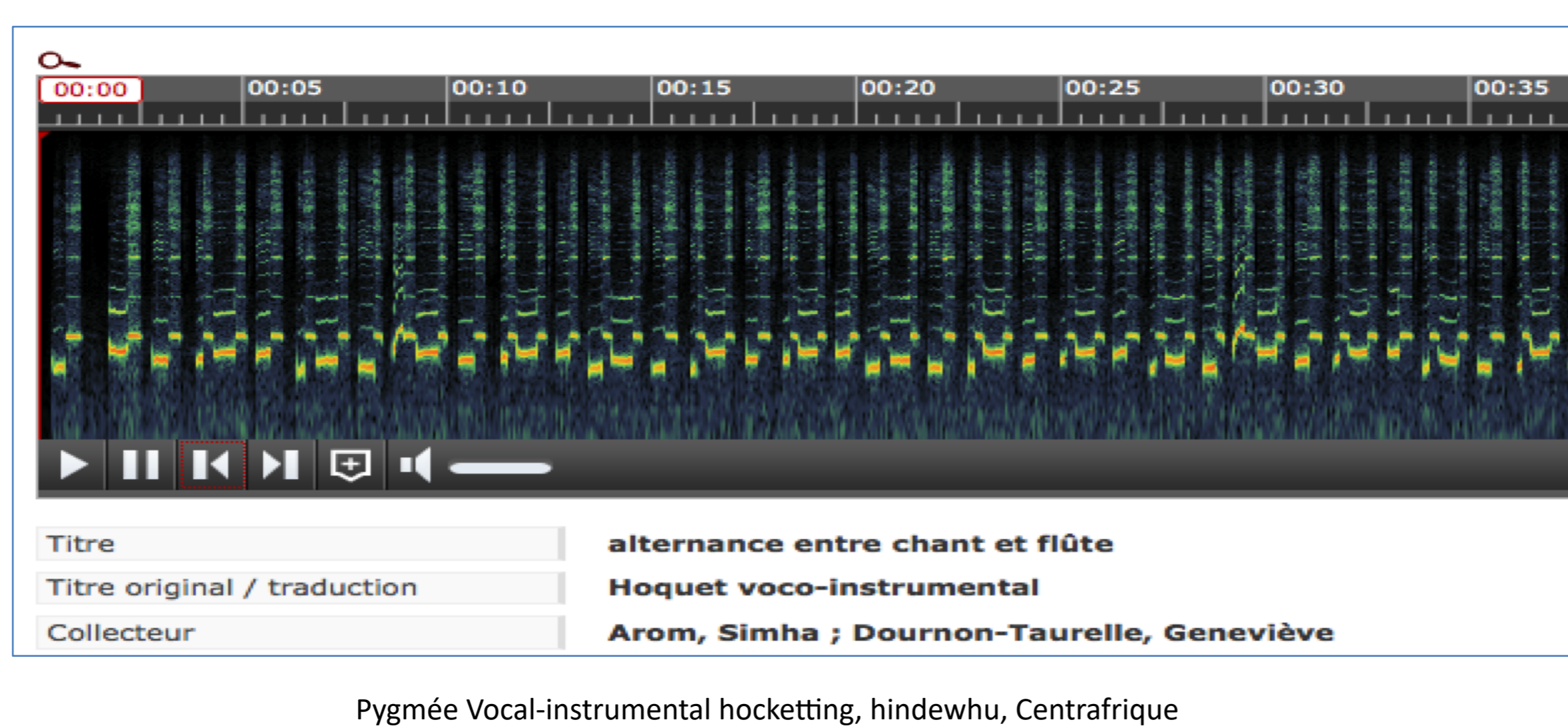
This collaborative platform, designed to index and enrich the archives, offers the opportunity to develop computational analysis tools, not parameterized only on Western music, in order to help the archiving process and the search for musical information in the sound content. <http://diadems.telemeta.org/>

Ethnomusicologists, acousticians, computer scientists and archivists developed together innovative tools that enable automatic detection of speech, singing, instrumental music, the beginning of a recording :

1. Time annotations

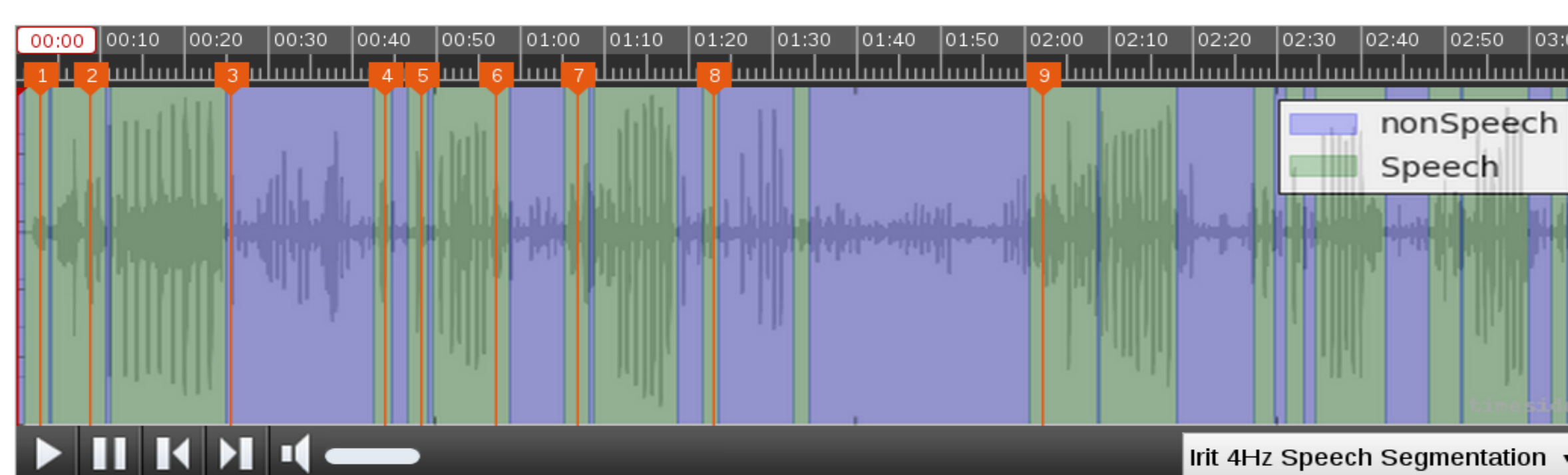


2. Spectral view

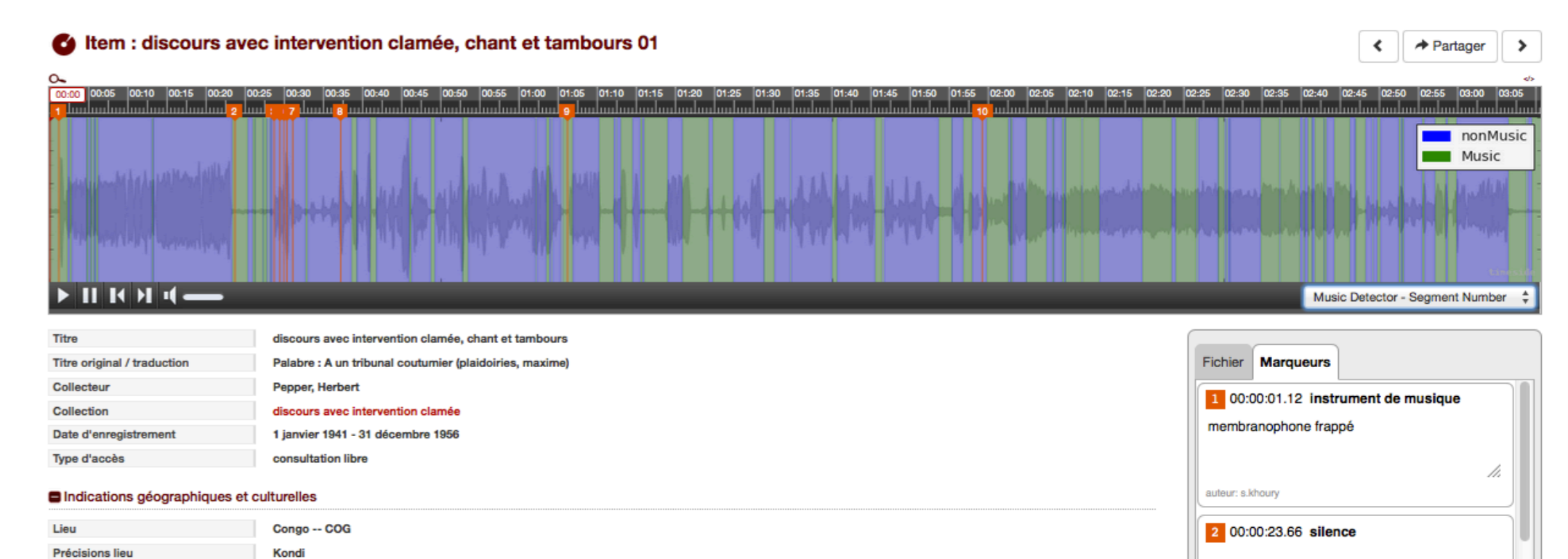


Pygmée Vocal-instrumental hocketing, hindewhu, Centrafrique

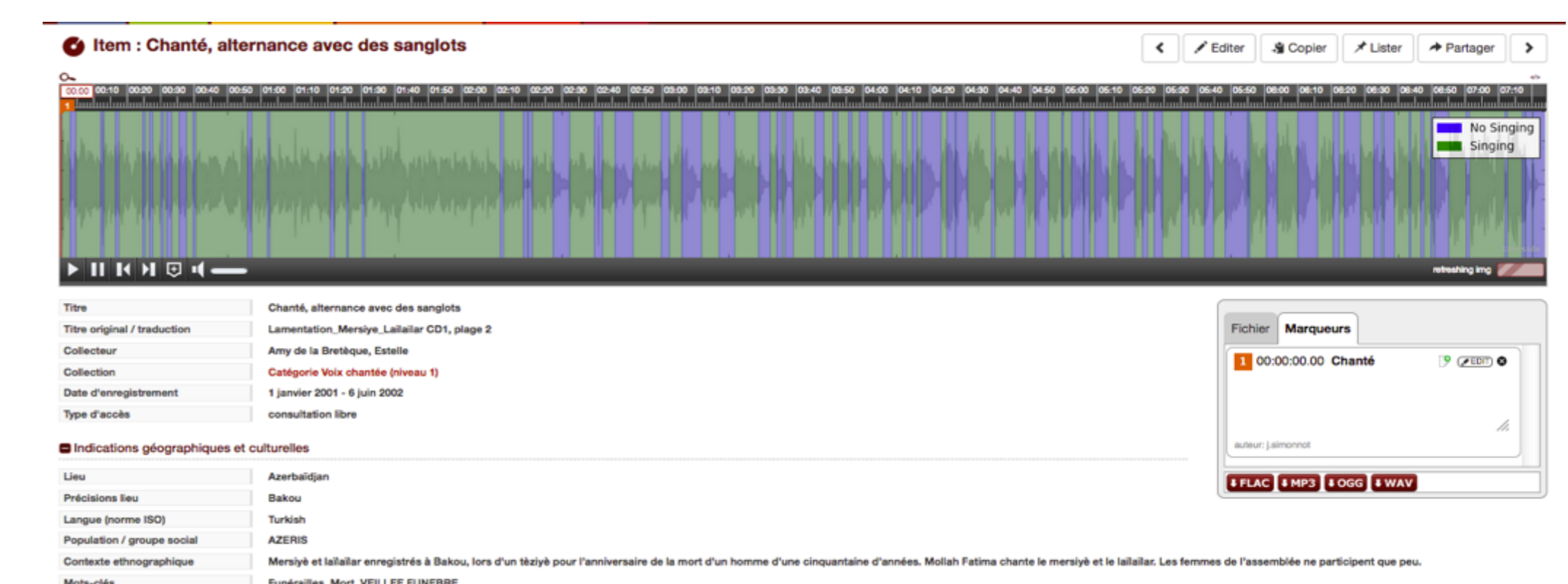
3. Speech detection



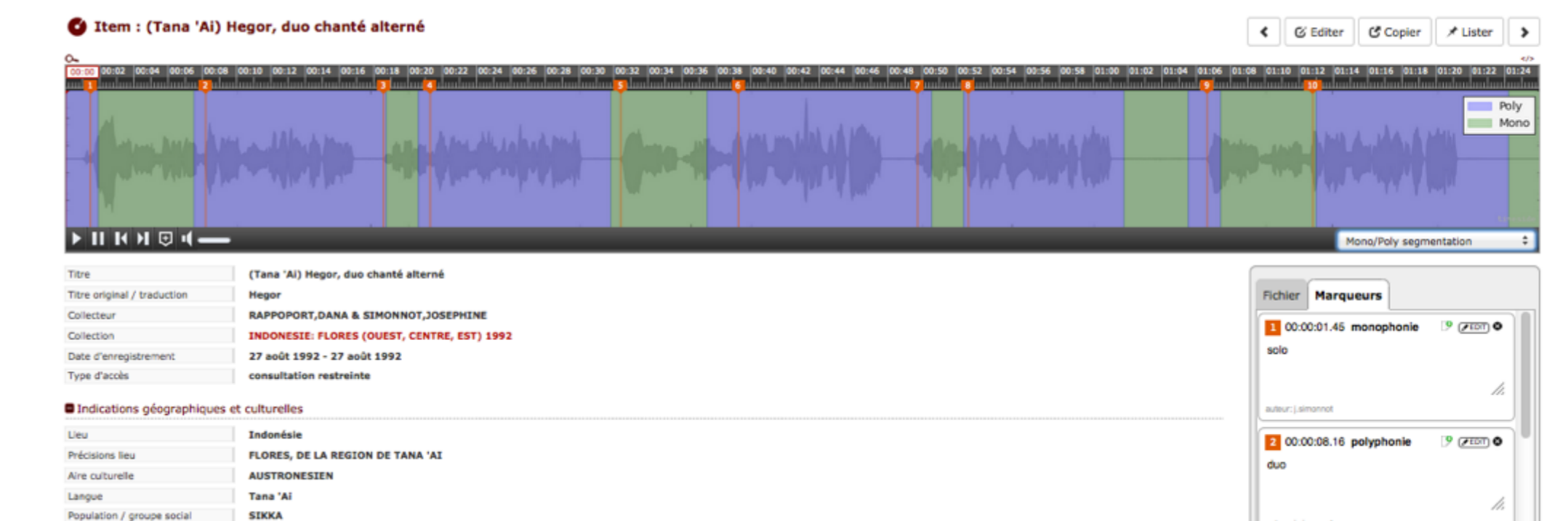
4. Music detection



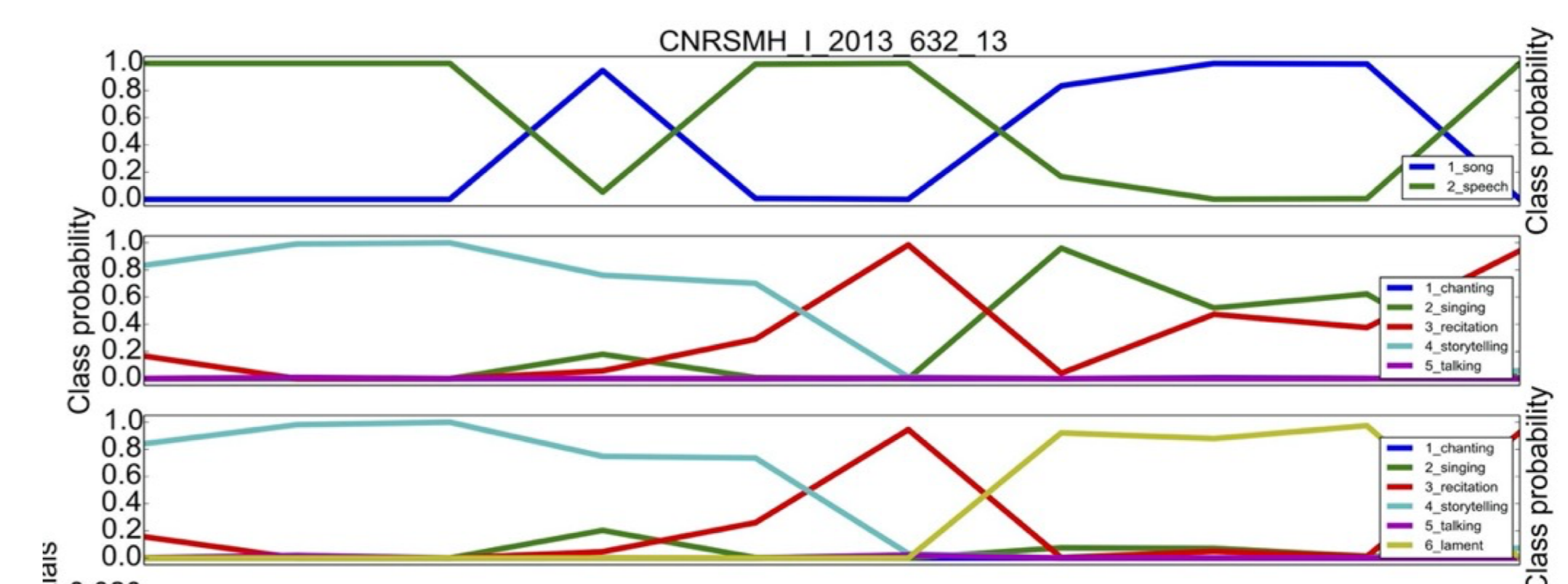
5. Singing voice detection



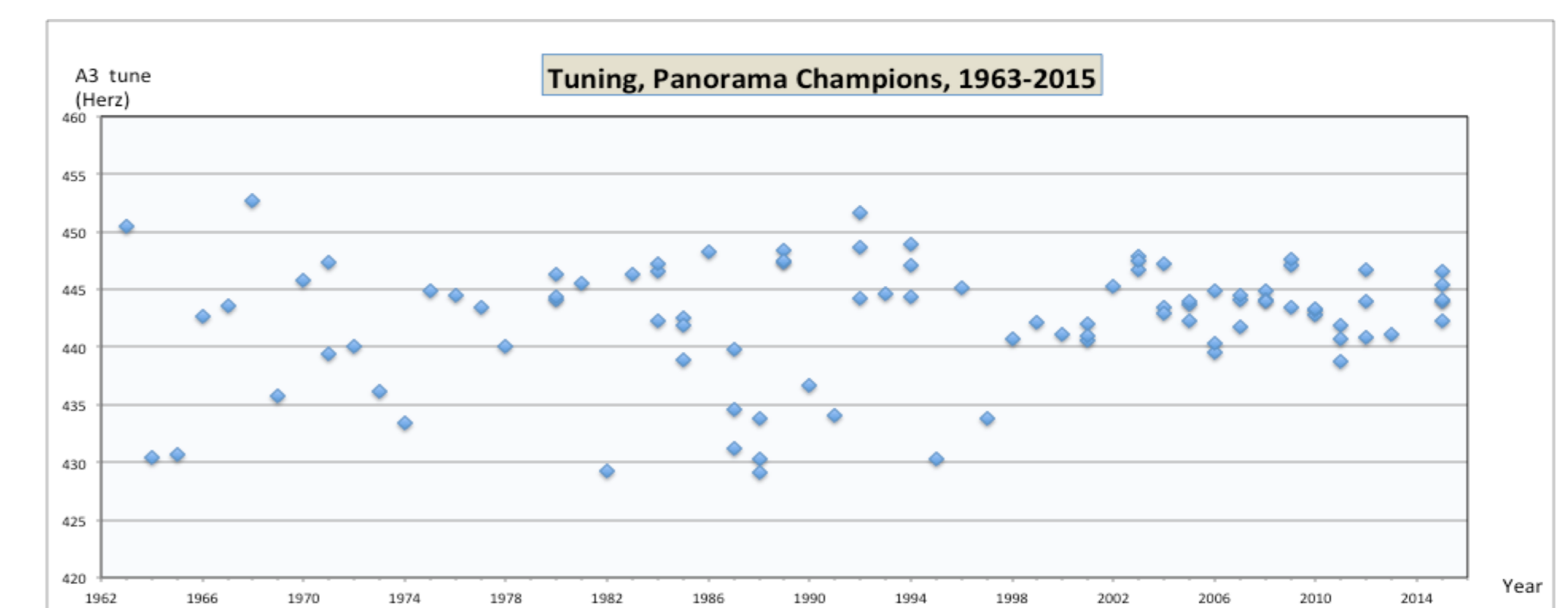
6. Monody/Polyphony detection



7. Vocal categories detection



8. Tempo, Tuning analysis



9. Dissonance, loudness

