

From Corpus to Classroom: Interactive Access to Children's Song Repertoire on the MUSCO Platform

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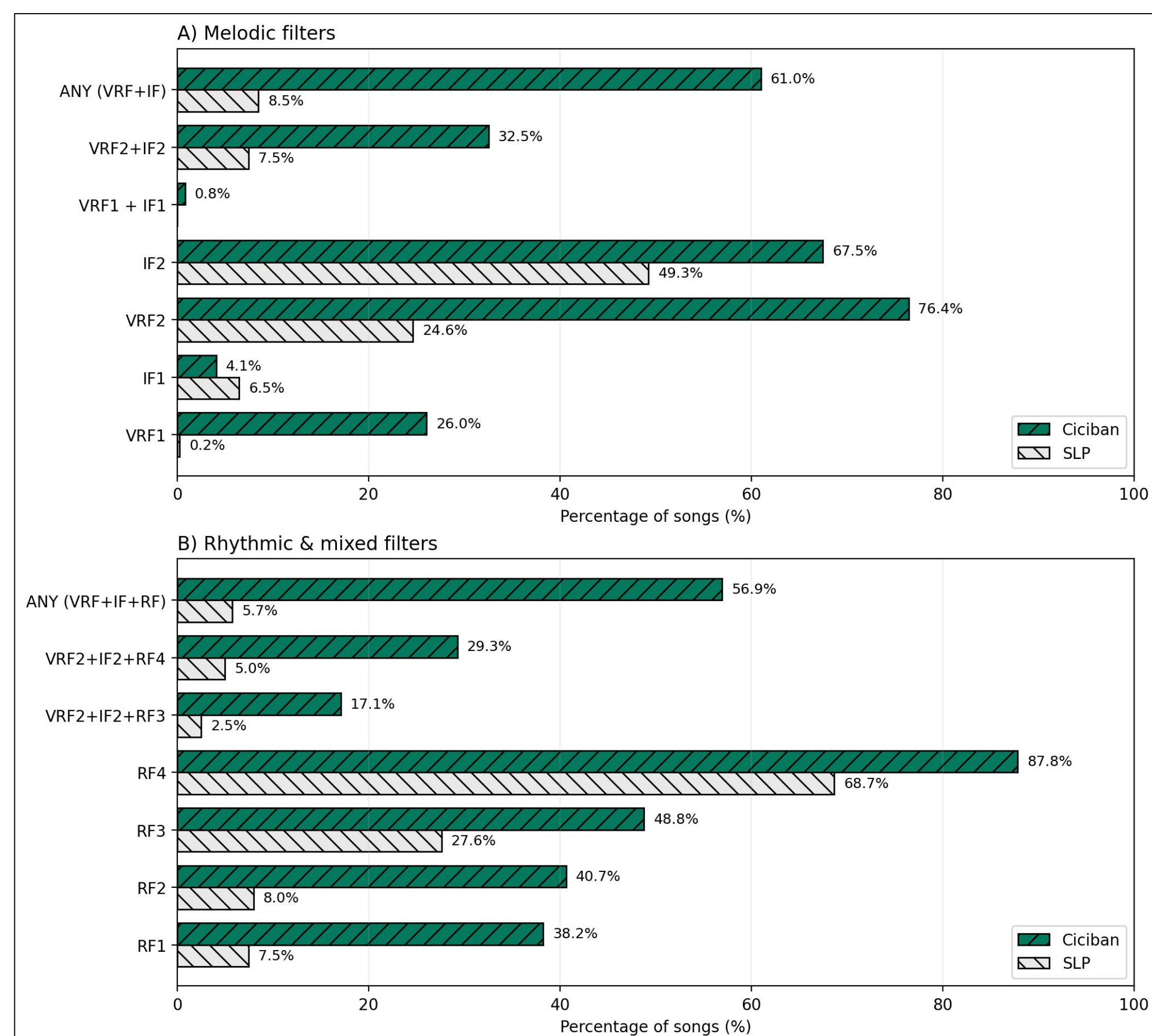
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➔ **Focus:** This study focuses on the creation of an open-source digital corpus and age-appropriate melodic and rhythmic filters (for ages 6–10), which were subsequently implemented in the digital music platform MUSCO.

➔ **Method:** We structure and evaluate melodic and rhythmic filters, grounded in pedagogical research (e.g., [2, 3]) from the same region, to distinguish children's songs from other repertoires. These filters are then applied to a new corpus of 123 Slovenian children's songs (Ciciban) and compared with 402 folk ballads [1].

➔ **Results:** As illustrated in the two plots below, **all proposed filters distinguish songs** or corpora that are more appropriate **for primary music education** from those that are not.

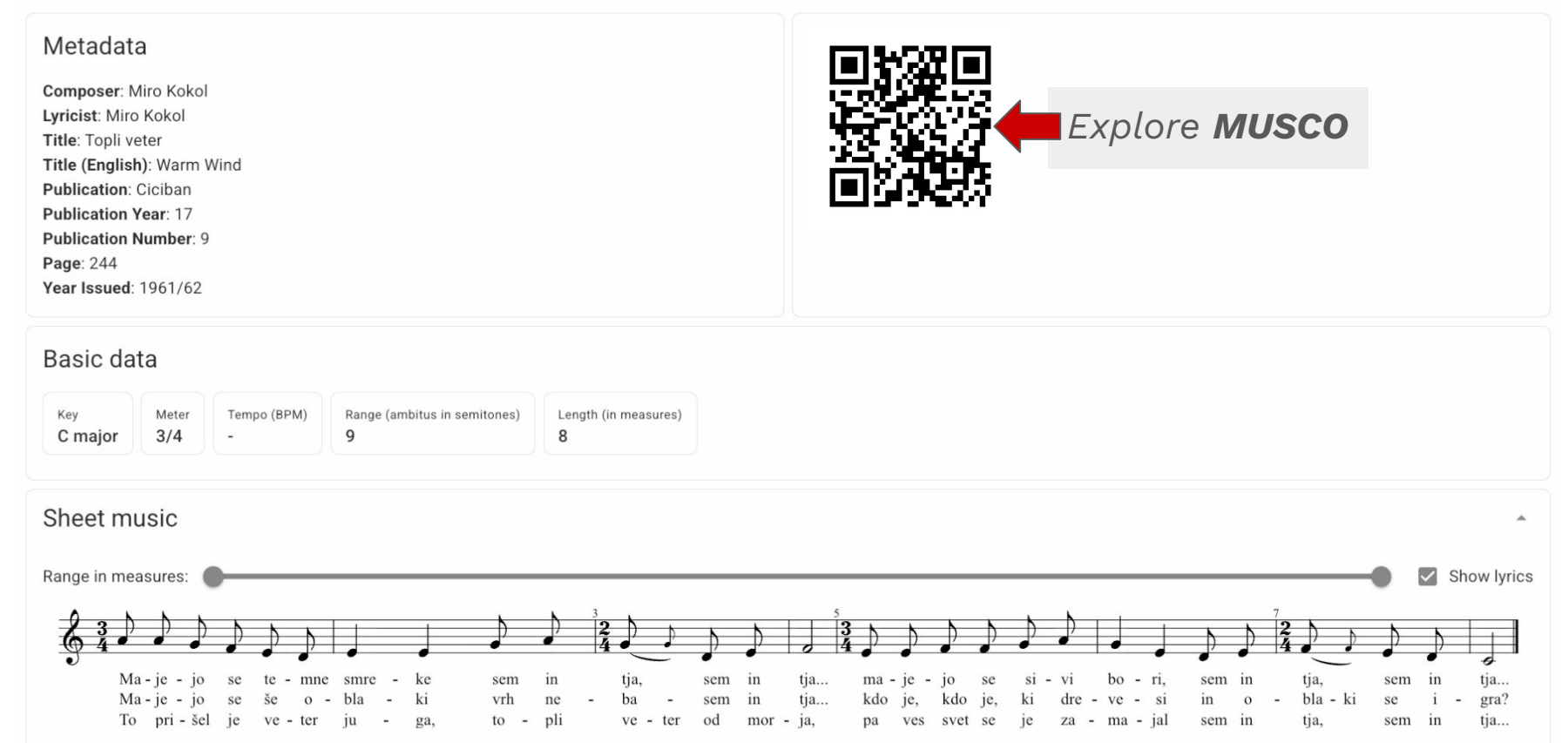


References:

[1] Borsan, Vanessa Nina; Kovačič, Mojca; Giraud, Mathieu; Pisk, Marjeta; Pesek, Matevž; Marolt, Matija, 2024, "The Digitised Dataset of Slovenian Folk Song Ballads", <https://doi.org/10.57745/SINZFK>, Recherche Data Gouv, V1

[2] Ivan Lešnik. 2015. *Children's Singing in Slovenia: Vocal Range Analyses. In Contemporary Approaches to Music Teaching and Learning*. LAP LAMBERT Academic Publishing, Saarbrücken, Lambert, 127–141.

[3] Žvar, Dragica. 2002. *Kako naj pojejo otroci: Priročnik za zborovodje* [How Children Should Sing: A Handbook for Choir Conductors]. Zavod Republike Slovenije za šolstvo, Ljubljana.



What is MUSCO?

An open-source digital music platform with three corpora (two notated, one audio). It supports exploration by metadata, musical descriptors (key, time signature, tempo, ambitus), educational filters (VRF1, VRF2, IF1, IF2), and rhythmic or melodic patterns (n-grams).

CICIBAN CORPUS

- **123 notated songs** from Ciciban magazines (1946–1990)
- Songs with Slovenian lyrics, primarily intended for younger children (from age 6)
- **Available data per song:** melody, rhythm, lyrics, and metadata (publication information, original and translated title, composer, lyricist, arranger, ...)
- All data freely downloadable in **JSON** or **MusicXML** formats
- **License:** CC BY-SA 4.0

EDUCATIONAL FILTERS

RHYTHM (RF)

RF1 (BTS; SR ≥ 90%)

RF2 (BTS; CR ≥ 70%)

RF3 (BTS; CR ≥ 70%; ≤ 2 pauses)

RF4 (single ts, any; CR ≥ 70%; ≤ 4 pauses)

MELODY (VRF, IF)

VRF1 (C4–A4)

VRF2 (A3–C5, ≤ 1 8ve)

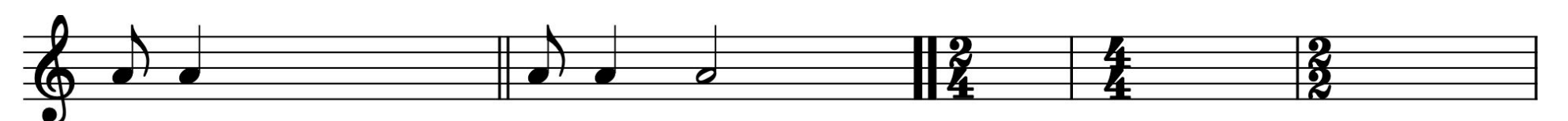
IF1 (P1, M2, m3, m2)

IF2 (up to P5)

SIMPLE RHYTHM (SR)

COMPLEX RHYTHM (CR)

BINARY TIME SIGNATURES (BTS)



A song titled *Račice* (Ducklings), composed by the Serbian composer Stanjlo Rajčič, published in *Ciciban* (1962).



Explore the complete code and the corpus on GitHub and Zenodo.