# Datasets for music research

# Audio vs symbolic datasets

- Audio: Continuous data
- Symbolic: note, event data
- Other elements of datasets
  - Metadata
  - Annotations
  - Extractions (chords, melodies, lyrics)

# ISMIR data set: https://www.ismir.net/resources/

- Possibly the largest
- Overwhelmingly contains audio sources but many resources not continuous
- Completely unstandardized

- **https://www.ismir.net/resources/datasets/**

# Music Brainz (London)

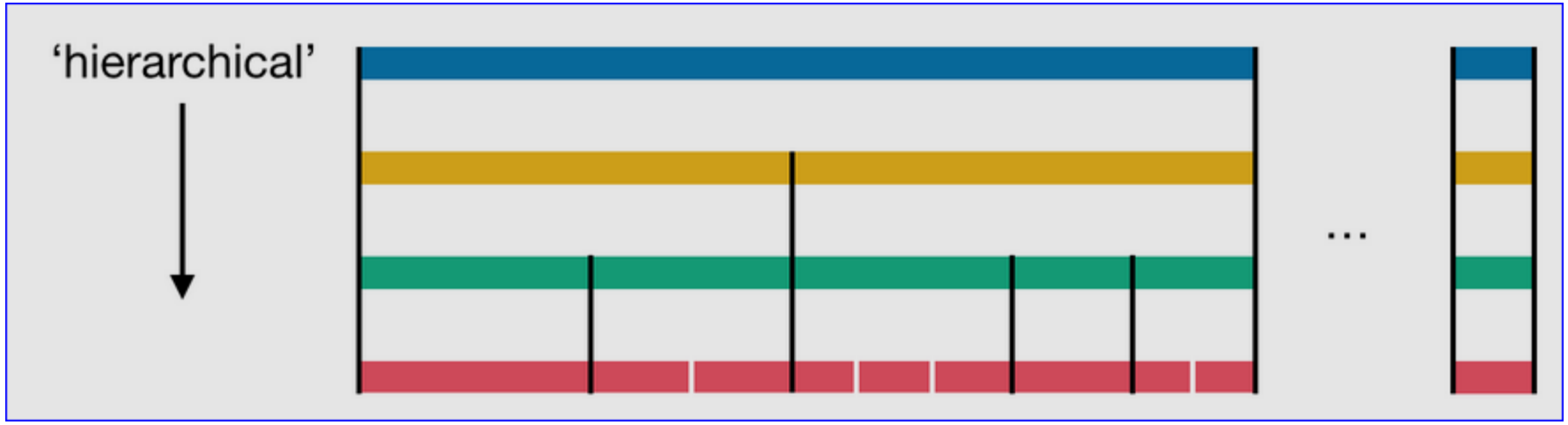
- "A dataset of **hierarchical genre definitions**" [metadata for audio features]
- Intended to evaluate recordings of undetermined content
- Collaboration of Barcelona MT group and Music Brainz (London)
- Not updated since July 2022;  processing still in progress
- >700,000 million unique titles (annotated database entries)
- Genre designations stated as probabilities
- One example: https://acousticbrainz.org/f36d9818-019b-4379-ad13-5080feb9ad8a
- Dataset list: **https://acousticbrainz.org/datasets/list**

# A word about **genre** [re: Music Brainz]

- Definitions of genre variable
- Clustering and similarity depend on boundaries that are not fixed
- Similar problems in classical and popular music
- Reasons for changing definitions may be different
- *Billboard Magazine* manipulates boundary definitions

# DALI: Singing voice detection

- Resources on github: https://github.com/gabolsgabs/DALI
- Hierarchical connections for synchronized audio, lyrics, vocal notes
- Based in Paris  (Geoff Pieters, IRCAM et al); > 5,300 songs



# ELVIS: duos-Josquin&LaRue-CPDL

- McGill University
- Consistent labeling; symbolic data (77 duos)
- Most files from other sources including the **Choral Public Domain Library** (CPDL), now ChoralWiki
- **https://www.cpdl.org/wiki/index.php/Main_Page**

# Choral Wiki

- **https://www.cpdl.org/wiki/index.php/Main_Page**
- Significant quantities of metadata
- Several symbolic formats
- 4000 composers
- 44,000 scores
- Seven additional languages
- Categories of usage, e.g., church music by season
  - https://www.cpdl.org/wiki/index.php/Category:Sacred_music_by_season

# LabROSA

- Automatic piano transcription (29)
- Disklavier, synthesized audio
- Dan Ellis et al., Columbia U.

- http://labrosa.ee.columbia.edu/sounds/music/

# Last.fm

- Listener centric research at U: Lin
- Enormous database of listening eventsM http://www.cp.jku.at/datasets/LFM-1b/
- Emphasis on genre; geography; et al:
  - Genre profile http://www.cp.jku.at/datasets/LFM-1b/
  - Full dataset 8GB http://drive.jku.at/ssf/s/readFile/share/1056/2664030636590301 89/publicLink/LFM-1b.zip

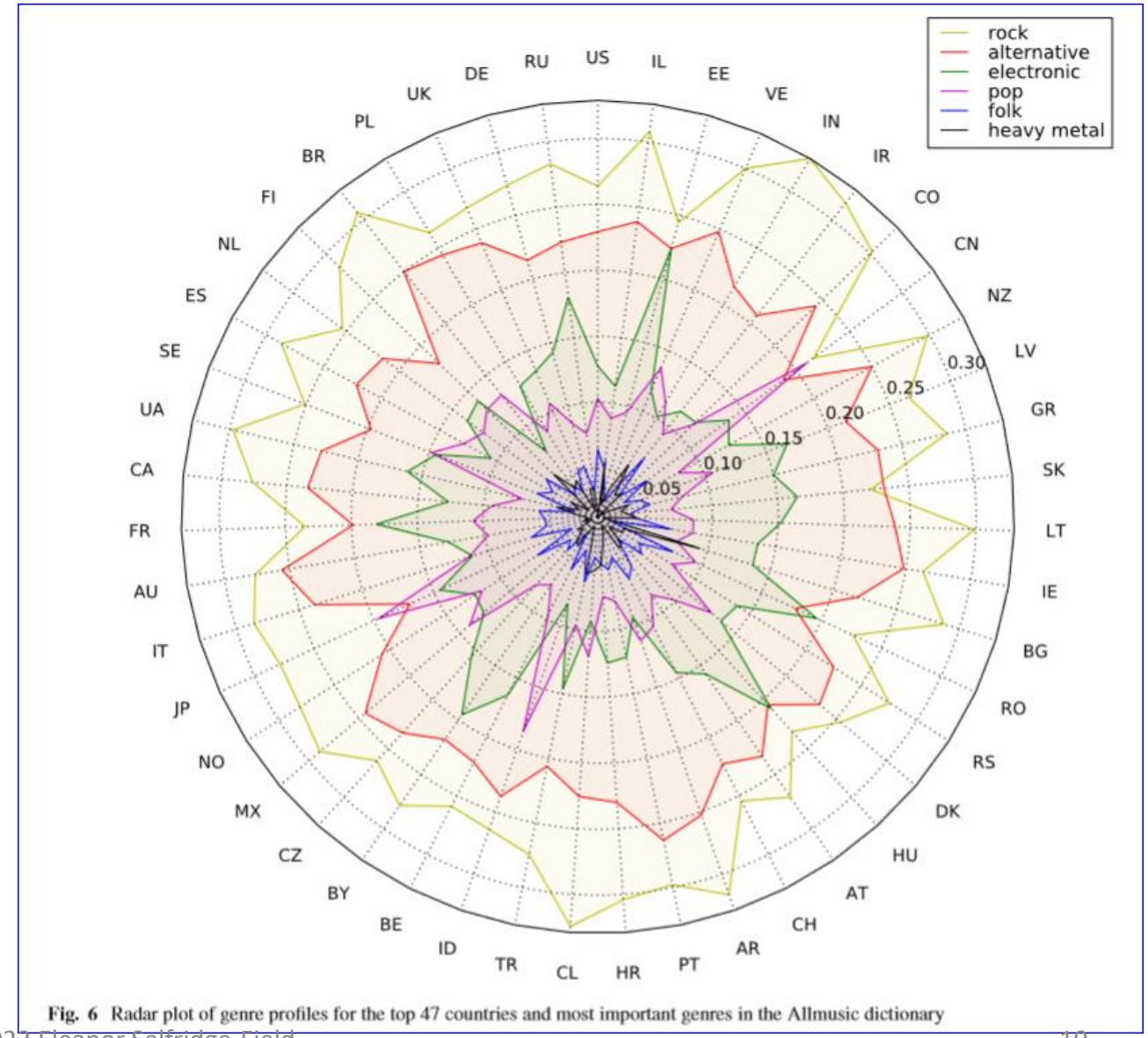
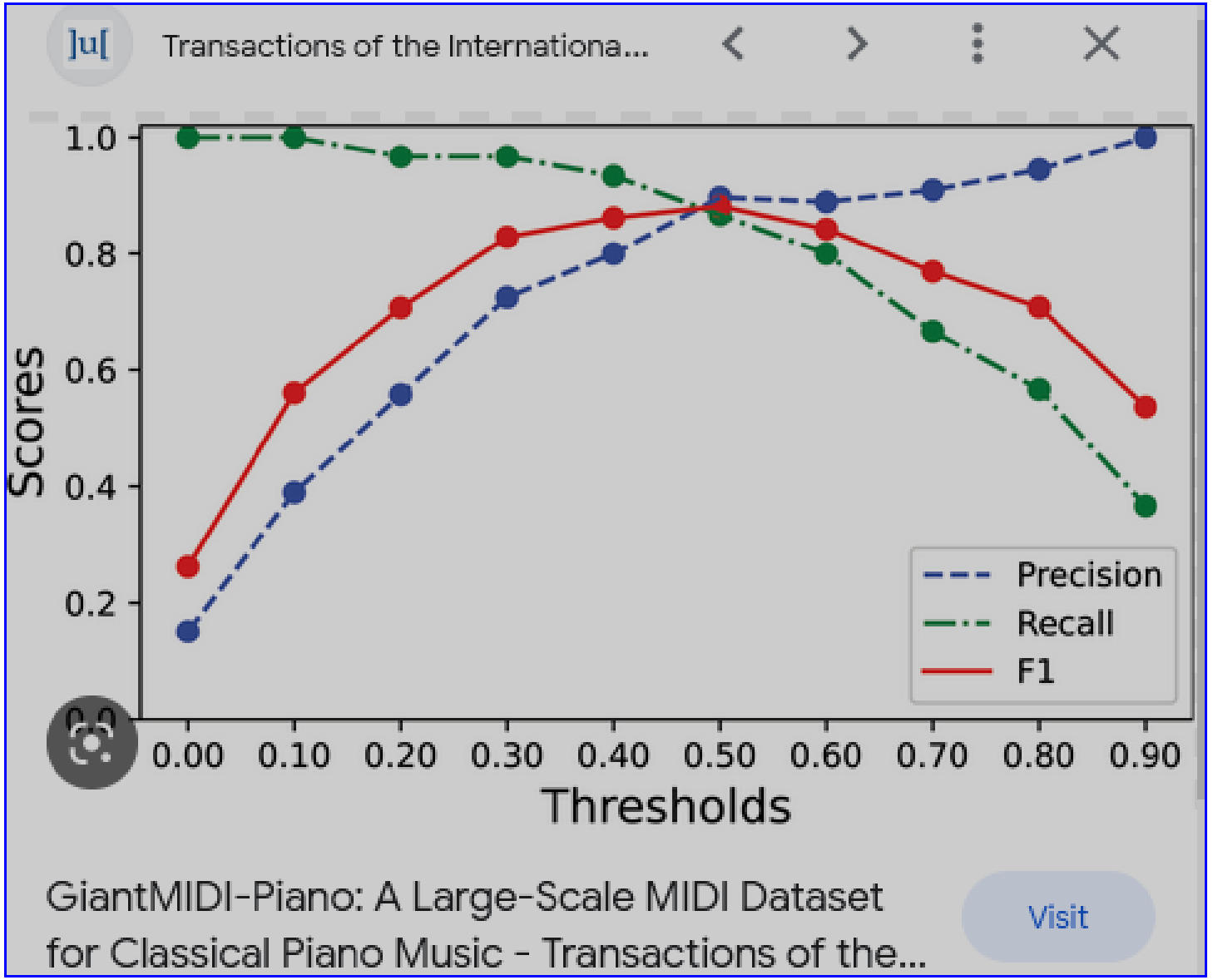



Fig. 6 Radar plot of genre profiles for the top 47 countries and most important genres in the Allmusic dictionary

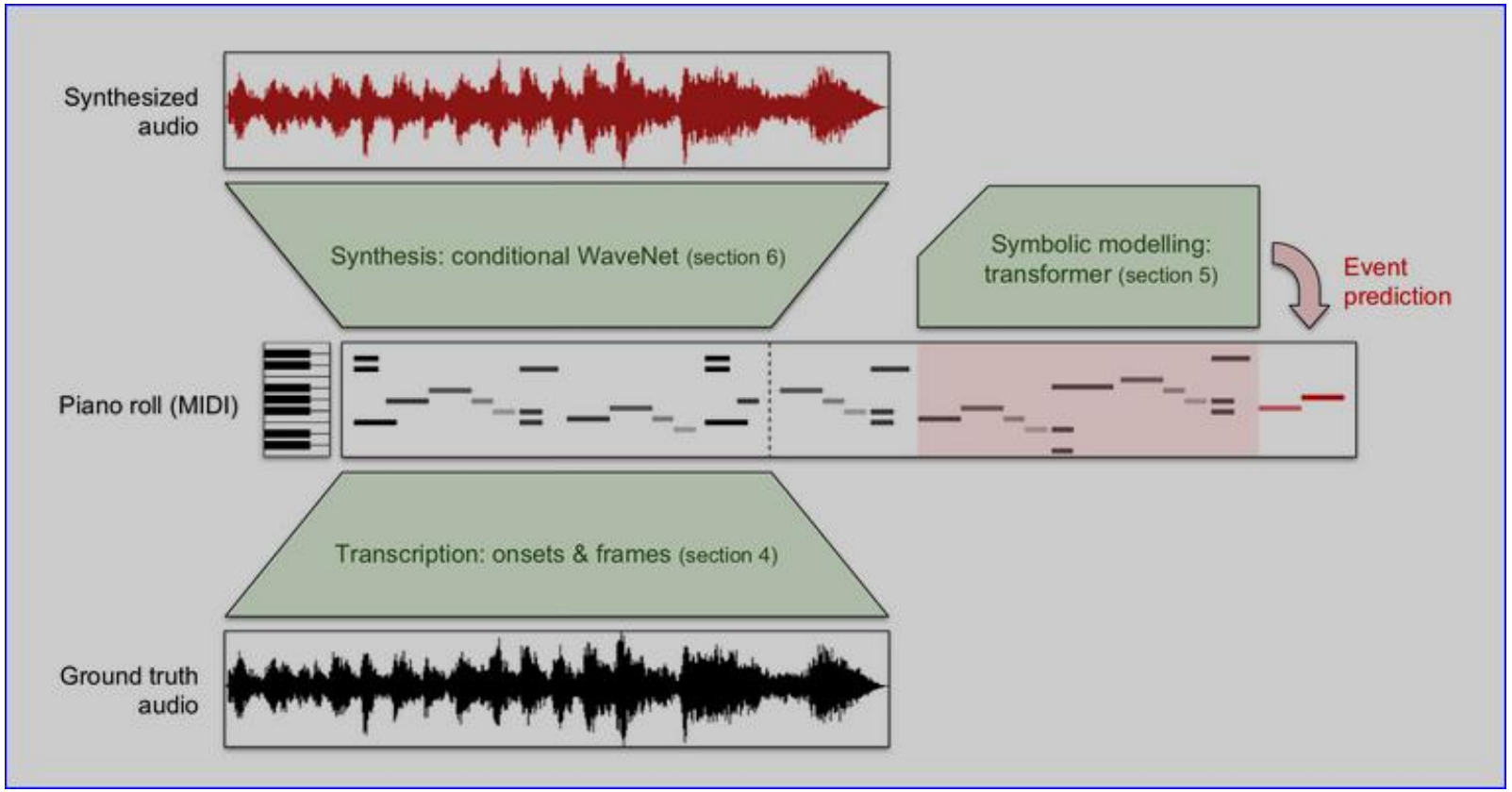
# Giant MIDI piano (bytedance)

- https://arxiv.org/abs/2010.07061
- Symbolic data sets for analysis
- Culled  names of works and composers from IMSLP
- Sought corresponding audio files
- Used convolutional NNs to detect solos, transcribed them
- 90% live performances
- Sought pitch class, interval, trichords, tetrachords
- Data: https://github.com/bytedance/GiantMIDI-Piano/tree/master/midis_for_evaluation/giantmidi-piano



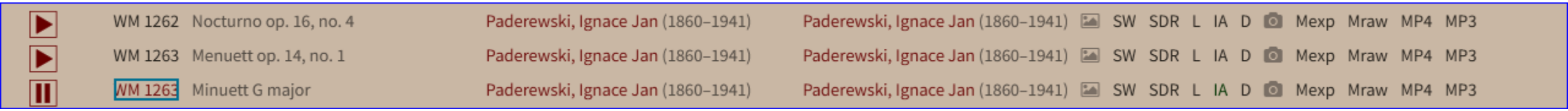
# MAESTRO dataset

- MIDI and audio for synchronous tracks
- Extracted from International Piano e Composition, 120 GB
- Magenta resource



# SUPRA: Piano-roll performances

- 478 performances
- E.g. Paderewski playing his own Minuet in G
- https://github.com/pianoroll/SUPRA/blob/master/metadata/marcxml/d/dw479gk0103.marcxml



# Shazam sample data

- https://purl.stanford.edu/fj396zz8014
- Offsets and query dates from Billboard hits (2015)