MUSIC INFORMATION CLASSIFICATION

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MUSIC INFORMATION RETRIEVAL

- MIR; extracting
  - Timbre
  - Genre
  - Mood
  - Pitch sounds
  - Tempo
- Processing audio, filtering or boosting instruments
- Also by using those characteristics, one can perform classification tasks.

DESCRIPTION OF THE PROBLEM

- Classification of the songs, according to their;
  - Composer
  - Region
  - Artist
- The aim is to create a map of melodies around Turkey

THE LEARNING PHASE

- The database;
  - 1300 wav formatted audio files
  - with the artist
  - Region
  - Composer information given

DESCRIPTION OF THE PROBLEM

- Feature Extraction
  - Many libraries available;
    - Marsyas
    - Jaudio
    - MIRToolbox for Matlab
  - But they are complex to use
  - Signal processing will be used for feature extraction.

DIFFICULTIES

- How to extract features?
- Which extracted feature will be used to detect;
  - Artist
  - Region
  - Composer

The Process

- The data is in time domain (a wave form) is useless
- Need to use Spectrum Analysis
  - Discrete Fourier Transform
  - Determining pitch notes
  - Matching

Expected Results

- To Have a classifier system which takes 10-20 sec fragment in wav format
- A mobile application will also be available on this classification task.
- An interface for the user (probably a web page and a smartphone application)
  - Which visualizes the map of melodies

CONCLUSION

- Map of Melodies around Turkey
- MIR Task are indtroduced
- Feature Extraction and matching those features are the primary difficulties

QUESTIONS ?