Introduction

* Commercial applications and interests in DSP for music signal processing
* Introduce DSP concepts :
  + Sampling theorem
  + DFT
    - Frequency resolution
    - Zero padding
  + STFT
    - Windowing
    - Frequency and time resolution trade off
* Introduce AMT and pitch detection
* State of the art approaches and challenges faced
  + NMF
  + NN
  + Traditional Signal Processing Methods

System Design

* Libraries used with analysis
* Main approaches
* System block diagram illustrating filters in even library functions such as librosa

Results

* Accuracy, precision and recall results of pitch detection
* STFT graphs showing predictions
* NMF
* NN
* Traditional Signal Processing Methods (CEPSTRUM, ACF) etc.

Future Work

* Areas to improve upon
* Problems unsolved
* Most promising avenues for further research