

code documentation

- Install numpy, librosa, scipy, matplotlib using "pip install numpy, librosa, scipy, matplotlib"
- The code has a Main Beat-tracker function that takes an audio file and an annotation file as arguments
- It returns the beats and downbeats
- it does an evaluation only if the user passes an annotation file for beats
- It also plots it if the user passes plot=True
- The main beat tracker function loads the file using librosa to get the data and its sample rate
- This data is taken by beat pipeline which converts them into stft and passes them to a list of onset functions in form of a tuple iteratively
- These novelties returned by these functions are then passed on to the peak picker which detects beat times and passes it to the beat fusion method, which after calculating mutual agreement scores and clustering ones returns a list of beat times.
- These beat times are then passed to the downbeat detection function for processing downbeats
- The beats and downbeats are finally returned and if evaluation and plotting are true then the code evaluates using mir_eval and plots and saves the performance as "performance.png"