## Automatic Music Transcription



**Figure 1**. The proposed Jointist framework. Our actual framework can transcribe/separate up to 39 different instruments as defined in Table  $\boxed{7}$  of Appendix. B: batch size, L: audio length, C: instrument classes, T: number of time steps, K: number of predicted instruments. Dotted lines represent iterative operations for K times. Best viewed in color.

## Goal:

Audio → MIDI (events note, on/off, time)

## Method:

- Use Demucs for extracting vocal and instrumental parts.
- Apply *Basic Pitch, Key Detection*, and *BPM Estimation* to enhance vocal transcription.