

Algorithms and Applications of Automatic Music Transcription

Simon Dixon^{1,a)}

概要: Automatic music transcription is the task of creating a score representation (for example in Western common music notation) from an audio recording or live audio stream. Although research on this topic spans almost 50 years, progress in the last few years has been quite remarkable. The field has moved from a situation where data was scarce, methods were ad hoc, and there were no standard methodologies or datasets for comparing competing approaches, to the current state where data-rich models are trained and tested on standard benchmark datasets. Various transcription tasks are addressed, such as transcription of a single or multiple simultaneous instruments, and transcription of the main melody or the bass line, the chords or the lyrics. After discussing some of the methods used in music transcription, I will give examples of how transcription can be used to analyse and understand human music-making via melodic patterns in jazz improvisation, expressive timing in classical and jazz performance, and intonation of harpsichord tuning in early classical music.

¹ Queen Mary University of London, London E1 4NS, UK

^{a)} s.e.dixon@qmul.ac.uk