

Instrumental Blending - Characterisation and Influencing Parameters

Dorothea Lincke¹, Tapio Lokki²

TU Berlin, Aalto University, Afrikanische Str. 2, 13351 Berlin, Germany
Aalto University, POBox 13000, 00076 Aalto, Finland

ABSTRACT

A common stylistic device in music is to blend the sound of one instrument into another's in order to create an array of timbres. This can lead to the perception of a single sound being heard rather than two instruments. This effect ranges between an analytical impression, in which both sources remain distinguishable, and the effect of a completely obscured sound. A literary study was conducted to investigate multiple factors such as spectral and temporal features of instruments, source positions, auditory scene analysis and room acoustic parameters. Throughout the course of this project, listening tests are being conducted with musicians and experienced listeners for the purpose of investigating the influence of concert hall acoustic parameters. Anechoic recordings of orchestral instruments were convolved with spatial impulse responses of existing concert halls. The influence of the early and the late part is investigated separately. Results will give a deeper understanding of how the blending of instruments is perceived with respect to room acoustic parameters.

¹dorothea.lincke@posteo.de

²tapio.lokki@aalto.fi