



On the use of reed-to-room transfer function in bassoon auralizations – a listening test

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Abstract

The sound of a bassoon in a room can be convincingly synthesized from a reed mouthpiece pressure measurement, if the transfer function between the reed and a room position is known. We present an experimental setup which allows to measure such “reed-to-room” transfer functions, with a bassoon fixed in playing position on stage and a binaural microphone on a seat in a concert hall. With measured mouthpiece pressure signals from a musician playing the fixed bassoon on stage, the synthesis results from convolving source signals with transfer functions can be compared to the corresponding measurements.

We demonstrate results in the form of a listening test to investigate the auditory quality of these auralizations.

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