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Acoustical characterization of orchestra platforms

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In concert halls and other performance spaces it is important that acoustic conditions allow the musicians to hear each other and that there is a sufficient response from the room. Acoustical characterization of spaces for musicians, like orchestra platforms, orchestra pits and rehearsal rooms requires the measurements of the Early and Late Support, and other acoustical parameters described in the ISO/DC 3382-1 and in Literature. This work shows results from measurements carried out on five orchestra platforms, different in shape, size and materials of the boundary surfaces. Up to eight source positions were chosen in order to represent the main instrumental sections of the orchestra playing on the platform. Measurements were carried out without musicians, in conditions of empty stage and stage equipped as in concert configuration with stands, chairs and risers. Some metrological problems connected with the reproducibility of results are considered as the directivity of the source and the small movements of the source and the microphone. The correlations between objective data show that the measured parameters are not always independent, but some groups of correlated measures, not completely separated, are found. The comparison of results allows to draw some connections with the main stage architectural features.