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Structure borne sound source data of building service equipments
for EN 12354 part 5 - Round Robin measurements

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At the conference, results will be presented of a round robin test where sound pressure levels and vibration data have been measured in 7 sites using two laundry machines and one heating compressor as sources. The vibrations are determined as transversal vibration levels of the concrete slabs (with the structural loss factors) according to a draft standard prEN 15657-1, as well as relative levels compared to the standardized tapping machine (ISO 140-8). The purpose is to study whether these data may be applied to predict structure borne sound in nearby spaces, according to the draft standard prEN 12354 parts 5 and 2, with a reasonable accuracy as compared to the measured sound pressure levels. The variations in space and time will be monitored carefully to observe any modal coincidence and whether the time and spatial average is the best descriptor of these types of source.