Subjective Response to Foot-Fall Noise, Including Localization of the Source Position -
DTU Orbit (05/05/2019)

Subjective Response to Foot-Fall Noise, Including Localization of the Source Position
Although an impact noise level is objectively evaluated the same according to current standards, a lightweight floor
structure is often subjectively judged more annoying than a heavy homogeneous structure. The hypothesis of the present
investigation is that the subjective judgment of impact noise is more annoying if the source position can be localized;
lightweight structures have a more localized radiation than heavy structures. For the heavy structures the reverberant
vibration field is dominant, therefore having a distributed radiation. A listening test is used to assess the subjective
annoyance, using simulated binaural room impulse responses, with sources being a moving point source or a nonmoving
surface source, and rooms being a room with a reverberation time of 0.5 s or an anechoic room. The paper concludes that
no strong effect of the source localization on the annoyance can be found.

General information
Publication status: Published
Organisations: Acoustic Technology, Department of Electrical Engineering, Technical University of Denmark
Contributors: Brunskog, J., Hwang, H. D., Jeong, C.
Pages: 904 - 908
Publication date: 2011
Peer-reviewed: Yes

Publication information
Journal: Acustica United with Acta Acustica
Volume: 97
Issue number: 5
ISSN (Print): 1610-1928
Ratings:
BFI (2011): BFI-level 2
Scopus rating (2011): CiteScore 0.65 SJR 0.558 SNIP 0.948
Web of Science (2011): Impact factor 0.569
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
Original language: English
DOIs: 10.3813/AAA.918470
Source: orbit
Source-ID: 282993
Research output: Contribution to journal › Journal article – Annual report year: 2011 › Research › peer-review