1. Record Nr. UNINA9911064753503321

Autore	Raabe Armin
Titolo	Acoustics and Indoor Climate : Room Comfort Assessment and Energy Efficiency / / by Armin Raabe, Peter Holstein
Pubbl/distr/stampa	Wiesbaden : , : Springer Fachmedien Wiesbaden : , : Imprint : Springer, , 2026
ISBN	3-658-50797-7
Edizione	[1st ed. 2026.]
Descrizione fisica	1 online resource (68 pages)
Collana	Springer essentials, , 2731-3115
Disciplina	690
Soggetti	Buildings - Design and construction Sustainable architecture Buildings - Repair and reconstruction Buildings - Maintenance Building Construction and Design Sustainable Architecture/Green Buildings Building Repair and Maintenance
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Vorwort -- Einführung (Motivation) -- Akustische Grundlagen -- Verfahren auf der Basis von Schallgeschwindigkeitsmessungen -- Anwendungen tomografischer Messungen -- Akustische Dichtheitsmessungen -- Zusammenfassung und Ausblick.-Literatur.
Sommario/riassunto	Although this essential deals with acoustic measurement methods in rooms and buildings, acoustics here is not to be understood as building acoustics. In addition to conventional methods for assessing indoor climate and achieving energy-efficient air conditioning, acoustic methods can provide information useful for indoor climate design, such as: • Analyzing sound speed distributions as a source of information about temperature and flow fields in rooms, • Acoustic detection of leaks to identify unwanted ventilation or air exchange and thus energy losses. These methods partly originate from other fields of knowledge, including meteorology, tomography, and acoustic imaging. They can therefore be regarded as alternatives and supplements to conventional methods for energy-efficient indoor climate design. The authors Armin

Raabe and Peter Holstein studied physics at the University of Leipzig. Their shared interest lies in analyzing sound propagation conditions in a wide range of environments and developing corresponding measurement methods. The work on the topic discussed here was carried out at the Institute of Meteorology at the University of Leipzig (A. Raabe) and in collaboration with SONOTEC GmbH (P. Holstein). The translation was done with the help of artificial intelligence. A subsequent human revision was done primarily in terms of content. .