Record Nr. UNINA9911011347303321 Autore Altenbach Holm Titolo Dynamics of Discrete and Continuum Structures and Media / / edited by Holm Altenbach, Victor A. Eremeyev Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 3-031-75626-6 Edizione [1st ed. 2025.] Descrizione fisica 1 online resource (1005 pages) Collana Advanced Structured Materials, , 1869-8441; ; 221 Altri autori (Persone) EremeyevVictor A Disciplina 531.7 Soggetti Continuum mechanics **Building materials** Acoustics Multibody systems Vibration Mechanics, Applied Architectural acoustics Continuum Mechanics Structural Materials Multibody Systems and Mechanical Vibrations **Architectural Acoustics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Waves propagation for beam lattice materials -- Dynamic models of discrete structures and their continuum limit -- Comparison of different approaches to wave analysis -- Natural and forced oscillations of materials and structures with complex inner structure -- Waves and oscillation theory within generalized media -- Surface and interfacial waves in media with surface energy. Sommario/riassunto This volume is dedicated to the sixtieth birthday of Prof. Alexev Porubov and contains a selection of scientific papers prepared by papers by his friends and colleagues from different countries. It is devoted to actual research in dynamics considering discrete and continuum models of continuum and structures. It includes

microstructures modeling the behavior of materials and offers new

theoretical approaches in dynamics with applications. There has been rapid development in the field of continuum mechanics in recent years. This has led to new theoretical concepts, e.g., better inclusion of the microstructure in the models describing material behavior. At the same time, there are also more applications for the theories in engineering practice. The book gives a new insight into the current developments.