

ENGLISH SUMMARY

UDK 550.34.01:550.344

KORHONEN, HEIKKI, LUOSTO, URMAS and TEIKARI, PEKKA, Earthquakes: distribution, causes and classification. Rakenteiden Mekaniikka 11 (1978)2, p. 1...12

This paper is a review article dealing with distribution and size classification of earthquakes. The concepts of magnitude and intensity as well as their determination are demonstrated. Problems related to the estimation of ground acceleration, velocity and displacement are discussed.

UDK 550.348:624.042.7:699.841

SALO, ILPO and KANERVA, PEKKA, The Structural Design and General Lay-out of Earthquake Resistant Buildings. Rakenteiden Mekaniikka 11 (1978)2, p. 13...26

The seismic design of skeletons of earthquake resistant buildings is discussed in this state-of-art report. Attention is specially paid to the energy absorption and toughness of the bracing systems. Thereafter some detailed instructions are given concerning the design and the general lay-out of the skeletons and the form of the building. Finally the laboratory testing of earthquake resistant bracing systems and the extra costs due to earthquake resistant design are shortly discussed.

UDK 550.349.06:624.07:624.042.7

JUMPPANEN, PAULI, Seismic analysis and design of bearing structures. Rakenteiden Mekaniikka 11 (1978)2, p. 27...45

The paper presents an overview of the background, the magnitude and of the way of action of seismic forces. Different types of dynamic analysis and of methods based on "equivalent static forces" in the examination of bearing structures are also considered. Furthermore, building code requirements of some countries and basic principles in seismic design are discussed.