

Mechanik-Seminar

Referent: **Prof. Dr. Ing. Jorge E. Crempien-Laborie**
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Datum: Donnerstag, ~~13.01.2011~~ **verschoben auf 27.01.2011**
Uhrzeit: 15:45 - 17:15 Uhr
Ort: Hertz-Hörsaal, Geb. 10.11, Raum 126

Thema: **"Stochastic Response Analysis of a Linear Structure Excited by a Non-Stationary Model of Earthquake"**

Abstract: Earthquakes are very erratic phenomena, and when the response of a structure is computed using a known accelerogram, what is obtained is just that, the response to that accelerograms. For this reason, a more rational way to treat the problem is to use past information to make a model based on the theory of random processes, with this model a recorded accelerogram becomes a realization of many mathematically possible outcomes for that earthquake in that site. This model can then be used to characterize the strong ground motion accelerations in a zone, or to perform standard random analysis of structures.

Here, a model of non-stationary strong ground motion acceleration is presented and the probabilistic structure of the response of 1DOF linear structures is computed, determining the expected displacement response spectrum.

Alle Interessenten sind herzlich eingeladen.

Prof. Dr.-Ing. K. Schweizerhof, Prof. Dr.-Ing. Thomas Seelig