i b k
Institut für Baustatik und Konstruktion

Seminar

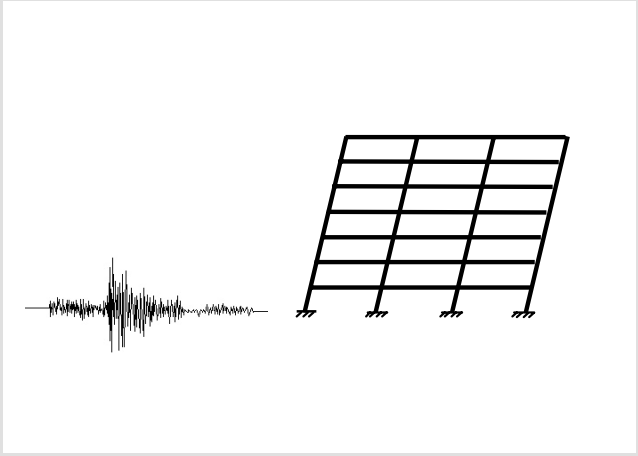
02. Dezember 2005

Improved earthquake ground motion measures for structural response prediction

Freitag, 02. Dezember 2005
16:00 Uhr, Hörsaal HIL D10.2
ETH-Hönggerberg, 8093 Zürich
(Lehrgebäude Bauwesen)

Dr. Jack W. Baker
Stanford University, Stanford CA

Postdoktorand am Institut für Baustatik und Konstruktion, ETH Zürich
Fachbereich: Risiko und Sicherheit



The strength of an earthquake ground motion is often quantified by an "intensity measure," such as peak ground acceleration or spectral acceleration at a given period. This intensity measure is used to predict the response of a structure, and is an important part of the Performance-Based Earthquake Engineering methodology. This lecture will present an improved two-parameter (i.e., vector-valued) intensity measure consisting of spectral acceleration and a parameter termed Epsilon. The improved intensity measure is used to compute the mean annual frequency of exceeding a given structural response level; it is demonstrated that using the improved intensity measure results in a more accurate calculation than when a traditional intensity measure is used. Implications for earthquake record selection will also be discussed.

Nächster Vortrag: IBK-Kolloquium, 17. Januar 2006, 17:00 Uhr, Auditorium HIL E3, 8093 Zürich
Dr. sc. tech. Hans G. Dauner, DIC SA, Aigle.
„Innovative Beiträge zum Bau von Brücken aus Stahl und Beton."

Informationen: http://www.ibk.ethz.ch/news/kolloquium

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