Linear and Nonlinear analysis of moment and braced frames in order to inquire their performance

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ABSTRACT

Researchers always try to find out new ways to reduce earthquake damages. About forty years ago, ductility had been taken into account by "R" coefficient in design codes. The behaviour coefficient "R" can be used in elastic structural analysis. Infact "R" only reduce equal static earthquake loads. Thus it introduces an approximatly procedure. Only a dynamical nonlinear analysis can be used to receive an exact solution. Using moment and braced frames are very popular structural systems against earthquake. The purpose of this thesis is to consider the effect of earthquake in this frames in accurate analysis. Linear, nonlinear and statical push-over analysis are used to calculate the behaviour coefficient "R" under the happened earthquake in iran.