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Review on Pushover Analysis Procedures

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Abstract: Pushover analysis was the recommended method of seismic analysis before this generation. Even though Non-Linear Time History analysis is a recommended method of practice for the current generation due to its accuracy, Pushover analysis has the capability which gives much more flexibility and information on its final results. The well-known concept of 'Performance criteria', which is the specification of an acceptable level of damage to a building, can be found using this method. Using pushover analysis, it's possible to study the parent factor, which is responsible for the behaviour of buildings during seismic events. In this review, we discussed the possible lateral load combinations that can be applied during the analysis procedure and how the results can be analysed. From previous studies, it is concluded that the pushover analysis can be influenced by the geometry of the building, lateral load pattern, and the method of result evaluation.

Keywords: Pushover analysis, Seismic evaluation, analysis procedure, Nonlinear analysis

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