

# **Analysis in seismic provisions for buildings – past, present and future**

**The fifth Prof. Nicholas Ambraseys lecture**

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## **Abstract**

The analysis of structures is a fundamental part of seismic design and assessment. It began more than a hundred years ago, when static analysis with lateral loads of about 10% of the weight of the structure was adopted in seismic regulations. For a long time seismic loads of this size remained in the majority of seismic codes worldwide. In the course of time, more advanced analysis procedures were implemented, taking into account the dynamics and nonlinear response of structures. In the future methods with explicit probabilistic considerations may be adopted as an option. In this paper, the development of seismic provisions as related to analysis is summarized, the present state is discussed, and possible further developments are envisaged.