

## **EUROCODE 8 and structural analysis methods and models**

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### **SUMMARY**

The design of modern buildings in seismic zones can be significantly affected by enforcing the rules proposed within EUROCODE 8. In fact, an interesting factor which consists of creating a relationship between the regularity of the structure and the complexity of the analysis and modelling may have adverse results thereby forcing the designers to use complex analyses even in cases where simpler methods have shown to be adequate.

The disadvantages of some of the more popular "accurate" analyses are discussed in detail and an alternative method, based on a static plane analysis, is proposed. The method is validated by a parametric study which involves the vast majority of modern buildings regular in elevation. The results of the study are presented and discussed in order to understand the general tendencies and identify the range of application of the method.

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