

CATASTROPHIC DESTRUCTION MECHANICS AND NUMERICAL MODELLING

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ABSTRACT

Aim and Scope: The mini-symposium aims to bring together the researchers who are interested in the computational aspects of mechanics related to the catastrophic failure of large engineering structures, such as high dams, geotechnical structures, bridges and high buildings. Many disastrous factors, including earthquake, storm, flood, tsunami, explosion etc., can cause sudden destruction or serious damage to the large engineering structures, which may result in tremendous loss of properties and human lives. Research on the mechanism of sudden failure of these structures under such extreme conditions is a very important subject. The mini-symposium will cover the following topics

- Progress in the research on catastrophic destruction mechanism and failure analysis.
- Time and space distribution of various disastrous damage factors
- Numerical modeling of the effect of disastrous damage factor on structures
- Damage mechanism and failure of the large engineering structures
- Theory and analysis method of material failure and structure damage
- Indication and criterion of structure failure