

19 / 23
Sept. 2021
ANGERS
● **FR**



European Safety and Reliability Conference

esrel2021.org

CALL FOR ABSTRACTS

Special session on
***Spatial modeling for resilience analysis:
from hazards to urban growth***

Description

Resilience of communities requires multiscale analyses ranging from hazard modeling, damage assessment, uncertainty quantification and risk analysis, resource management and allocation, land use, up to the modeling of urban growth. These analyses are generally space-dependent and require inputs from multiple nested models.

Motivation

Spatial modeling presents several challenges, such as the definition of the modeling scale, the modeling of the dependencies among predictions at different locations, and the quantification of the significant uncertainties in spatial data distributed over large footprints. For a suitable resilience analysis of communities, there is a need to discuss how to address these challenges using, for example, techniques commonly used in spatial modeling, such as random fields and artificial neural networks.

Objective

This special session aims to present the state-of-the-art in spatial modeling and allow researchers to compare and discuss techniques and tools used to overcome the different challenges that spatial modeling presents.

Organizer

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