Session ID: SHR-17

Title
HAZARD AND LOSS MODELLING UNDER THE LESSONS LEARNED FROM RECENT EARTHQUAKES. IMPLICATIONS ON INSURANCE AND REINSURANCE

Convenors
F. Cotton [1], M. Erdik [2]

Description
Modeling earthquakes to estimate the vibratory ground motion amplitudes and the consequential losses in structures and contents requires the implementation of probabilistic models for both seismic hazard and risk. These probabilistic models integrate the variability of natural phenomena and uncertainties related to our lack of knowledge or differences in models from different scientists or experts. Uncertainties remain high and confrontations with the observations from devastating earthquakes, learning from such events, and implementing them to hazard and loss models for improving their estimations are fundamental.

We invite contributions that will contribute to discussing the following questions:
- Are the loss models and methods to improve earthquake response of structures (including design regulations) challenged by the damage and loss observations after recent earthquakes?
- How well have the most recent seismic hazard models performed for these earthquakes? What are the points of the locus for their improvements?
- What knowledge is missing to reduce the uncertainties in the earthquake loss models used in practice?
- How can we improve the interaction between insurance/reinsurance sectors and academia for betterment in loss estimations of insured portfolios?
- How can we develop up-to-date science-based hazard and loss models in close collaboration with the private sector actors who shape the economic markets?

Analysis of the lessons learned from recent earthquakes (e.g. 2023 Pazarcik (Mw 7.8) and Elbistan (Mw 7.7) earthquake in Turkiye) will certainly be welcome.

Invited Speakers
S. Akkar [3], H. Crowley [4], F. Jalayer [5], G. Franco [6], P. Bazzurro [7]

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