Preparatory Joint Working Group on Neo-Deterministic Seismic Hazard Assessment (pJWG NDSHA)

Newsletters

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More reliable physics in seismic hazard assessment (SHA) for disaster risk reduction (DRR)

(More reliable physics in SHA for DRR)

This issue

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On May 24th, Prof. Vladimir G. Kossobokov, member of the scientific advisory board of our pJWG-NDSHA, received his certificate of the Accademia Nazionale Delle Scienze detta dei XL (https://www.accademiaxl.it/). The video could be found at https://www.youtube.com/watch?v=fSaTB-QGC9Y, from minute about 47:00 to 49:15. More details of this message could be found in Newsletter VOL 2, issue 5.



Earthquake hazard has much greater impact on the society: Prof. Panza

Earthquake hazard has much greater impact on the society, comparing to the climate change, said Prof. Panza in an interview on global change issue (https://clintel.org/interview-giuliano-panza/). He said: Indeed, the article by Robert P. Crease shows that nothing changes "there is nothing new under the sun" (https://en.wiktionary.org/wiki/nihil sub sole novum) and this may be a message necessary to be spread around: A strong earthquake could hit many cities worldwide at any time (e.g., Wyss et al., 2024). In the event of a strong earthquake that hit a populous city, the country would receive a very hard blow, which would have effects on all citizens for years. Such an event is surely more likely to happen before any of the climatic predictions made so far will be confirmed by facts, as shown in https://extinctionclock.org/ (Internet's authoritative source for end of world climate and extinction predictions. All predictions have been made by notable individuals, academics, politicians, institutes, and the press). As you can see the list of climatic predictions starts in 1970; it could be interesting to see how many disastrous earthquakes occurred since then.

References

Wyss, M., Speiser, M., Tolis, S., 2024. The earthquake fatality load: a measure of impact. *Bulletin of the Seismological Society of America*, https://doi.org/10.1785/0120230187.

Session 10 for DEEP 2024 calling for participation

The International Symposium on Deep Earth Exploration and Practices (DEEP-2024) will be held from 22 to 24 October 2024 in Beijing, China (http://deep2024.sinoprobe.org). Profs. Antonella Peresan and Vladimir Kossobokov both act as co-convenors of session S10, Earthquake Hazards 1: Before the earthquake: predicting, forecasting, alerting, with the session scope as follow:

Earthquakes are not random occurrences but do lack an obvious principle of organization. Instead, earthquakes appear self-organized phenomena within Earth's hierarchy ranging from tectonic plates to grains of rocks that move relative to each other. Significant steps have been made towards assessing earthquake space-time-magnitude relationships and recognition of multifactorial patterns, showing the potential for reproducible, testable, and reliable operational earthquake forecasting. Regrettably, existing systems of operational early warning after an earthquake occurs have large "dead/blind zones" due to uncertainty in quick determinations of its size and location. Pre-earthquake anomalous phenomena exhibit spatiotemporal characteristics; realistic forecast assessment may consider different time scales from decades to months (or even weeks, or days) at global, regional, and local scales.

This session encourages the exchange of knowledge and sharing of good practices acquired through various methodologies. Contributions addressing the following theoretical and practical issues are welcome:

- Relevant state-of-the-art multidisciplinary observations.
- Systematic analysis, physical interpretation, and modelling of earthquake related processes.
- Validation and statistical justification of various candidates to precursors of catastrophic earthquakes.
- Earthquake forecast/prediction experiments and testing of predictability.

- Time-dependent seismic hazard assessment based on reproducible observables.
- Methods for cascading risks assessment.
- Problems in dissemination of earthquake related information.

The convenors of the session include: Yongxian Zhang, Chieh-Hung Cheng, Vladimir Kossobokov, Antonella Peresan, Max Werner

The deadline for abstract submission is August 1, 2024.

In connection to the DEEP-24 symposium, JWG is considering to organize a group meeting in Beijing, hopefully with the ASC leader/s. Prof. G. F. Panza, scientific advisor of JWG, had expressed his willingness to attend the meeting on-line. Besides the preparation for the coming ASC GA, if you have any suggestion on the agenda of the group meeting, please contact Dr. Yan Zhang, the ASC-side secretary general of JWG.

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