

CNR-IASPEI
Activities' Report - Year 2019
Warner Marzocchi

1. Introduction

The IASPEI (International Association of Seismology and Physics of the Earth Interior) promotes the study of the structure, properties and processes of the Earth interior, and is one of the eight associations of the International Union of Geodesy and Geophysics (IUGG). The IASPEI organizes its General Assemblies every four years, together with the ordinary General Assembly of the IUGG. During the time interval between its General Assemblies, IASPEI organizes its Scientific Assembly, often together with one of the other associations of the IUGG. In 2019 the IASPEI General Assembly was held in Montreal (Canada). Currently the President of IASPEI is Prof. Kenji Satake (University of Tokyo, Japan), while the Secretary General is Dr. Johannes Schweitzer of NORSAR (Norway).

2. Main activities carried on by (Union name) during 2019 relevant for Italy and for CNR

The IASPEI welcomed and supported the Italian organization of the Workshop "State of the art and perspectives in the predictability of natural events" described below.

3. Activities carried on by (Italian Delegate name) within the Union during 2019 and impact on the Italian scientific community

The undersigned was appointed IASPEI representative in February 2019 (measure of the President of the CNR n. 11/2019 of 11.02.2019 prot. 0009953). I was subsequently appointed secretary of the commission.

In July 2019 the IUGG General Assembly was held in Montreal and the undersigned was part of the Italian CNR delegation by participating in a meeting of the Italian representatives of the different associations and to present a couple of presentations, entitled: i) "MPS19: the Seismic Hazard Model in Italy"; ii) "An Update of the Operational Earthquake Forecasting system in Italy".

Furthermore, in 2019 - in collaboration with Dr. Fausto Guzzetti (at the time director of IRPI CNR) President of the national commission CNR-IUGG (National Research Council - International Union of Geodesy and Geophysics) - it was organized in Aula Marconi, at CNR, in Rome, on 26 and 27 November 2019, the workshop "State of the art and perspectives in the predictability of natural events".

The workshop had the objective of making experts discuss various aspects of forecasting natural events and risks, to understand the differences in approaches, to talk about terminology, and to evaluate if and how much the efforts each one makes in their own sectors are comparable with what is done by others in other associations. The comparison may be particularly useful in a context of "multi-hazard/multi-risk", which is talked about a lot and which is often poorly founded from the point of view of scientific rigor, or not very useful from the point of view of application.

The first workshop in a series focused on some (not all) natural hazards. Other hazards will be addressed in a second workshop originally scheduled for early 2020, but then postponed for the COVID-19 emergency, which will address aspects of vulnerability, impact, risk, mitigation and communication.

The event was divided into two days with 16 presentations aimed at exposing the "state of the art" of forecasting skills in various sectors, interspersed with periods of discussion and collegial discussion. The 16 speakers were chosen by the CNR representatives from the 8 international associations that make up the IUGG.

The presentations, each of 25 minutes, including the questions and answers, were interspersed with periods of collective discussion on the current capabilities and perspectives in the predictability of the natural events considered. These collegiate moments were the main purpose of the workshop: the invited experts - together with the speakers - discussed identifying problems, similarities and differences with what is commonly done in the various fields of interest, perhaps proposing solutions, paths and - why not - alternative visions compared to those proposed by the speakers.

For IASPEI the speakers were:

Warner Marzocchi (UNINA), Operational forecast of earthquakes

Carlo Meletti (INGV), Long-term seismic hazard: tool of prediction or prevention?

In addition to the speakers mentioned above, the following participated for the IASPEI: Jacopo Selva, Laura Sandri and Stefano Parolai

4. Evaluation of the participation in terms of benefits and membership cost

The IASPEI represents one of the most important organizations in the field of seismology. As mentioned above, Italy is a country with an important seismic activity, so it is vital that the Italian community continues to have a strong participation in this association.

5. Evaluation of Italians' attendance and how to improve interest and involvement

In addition to the General Assemblies, the IASPEI organizes various thematic workshops, which focus on specific topics for seismology and physics of the Earth interior. Among the various commissions that refer to the IASPEI, there is also the European Seismological Commission (ESC) which historically sees a large and motivated Italian participation.

Since its inception, the activity of Italian researchers in IASPEI has always been very intense and of a high scientific level. Italy has a consolidated tradition in research in the field of seismology and physics of the Earth, which is demonstrated both in the acquisition of high quality geophysical data, and in their analysis and interpretation to determine the physical processes that govern the dynamics of the Earth interior and earthquakes. Italy is a country characterized by high seismicity and seismic monitoring networks are modern and of high quality, and allow the collection of data and observations both for understanding the physical processes and for supporting the civil protection system for the management of emergencies. The Italian participation in the General Assembly of 2019 was characterized by a very good scientific level and by contributions distributed in the different sessions of the conference.

The realization of other thematic workshops, as soon as the emergency from COVID19 will be overcome, will be a further opportunity to broaden the involvement of Italian experts and young people interested in IASPEI topics, creating synergies also of an interdisciplinary nature.

6. Italian experts with important roles within the Union or within related Commissions and Programs (if known)

Nobody I know of.

7. If Union with CNR Commission, short summary about the 2019 CNR Commission activities

The CNR-IUGG Commission (reconstituted by the President of the CNR n. 25/2019, prot. AMMCNT, n. 0018310 of March 11, 2019) is composed, by statute of the Body, of the Italian Representative in IUGG and the Italian Representative in the eight IUGG Associations. The undersigned is therefore a member of the Commission and at the first meeting of 27 March 2019 he was unanimously elected Scientific Secretary of the Commission. The predominant activity of the Commission during its first year was the realization of the Workshop in November described above.

Other activities concerned:

- Opinion in favor of the acceptance of Latvia (Latvia) as new IUGG Associate member.
- Update of the IUGG Yearbook 2020

8. Notes (if any)

No

9. Conclusions

I would like to reiterate the importance of having a strong Italian participation within the IASPEI.

Signature

A handwritten signature in blue ink, appearing to read "Wanda Mueschel". The signature is written in a cursive style with a long, sweeping underline.

Place and date: Rome, May 21, 2020