

CNR-IASPEI
Activities' Report - Year 2021
Warner Marzocchi

1. Introduction

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). 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 IASPEI during 2021 relevant for Italy and for CNR

The SARS-CoV-2 pandemic has severely affected IASPEI activities in 2021, as well as for many other congress and corporate activities. In spite of these difficulties, in 2021 the first meetings in presence, or in blended format, restarted. Among these we point out those of interest to the IASPEI:

- The 37th General Assembly of the European Seismological Commission (ESC), which was organized under the auspices of the National and Kapodistrian University of Athens and more specifically by the Section of Geophysics – Geothermics of the Department Geology and Geoenvironment, with the contribution of the Ionian University and of the National Observatory of Athens, was conducted during 19 – 24 September 2021. Due to the Covid 19 pandemic, the General Assembly of the ESC was delivered fully virtually, instead of being held in the island of Corfu, at the Ionian Islands in Western Greece.
- Online seminars ("webinars") of the Italian (national) section of the International Ocean Discovery Program (IODP) within the European Consortium for Oceanic Research Drilling (ECORD);
- As part of the EGU General Assembly, the G3.6 session, co-sponsored by the IUGG and focused on deformations and seismology (Susanna ZERBINI co-convener);
- As part of the Fall meeting of the American Geophysical Union, the State-of-the-Art Observations and Modeling of Earthquake Source Processes session focused on the seismic source (Elisa TINTI co-convener);
- As part of an ERC advanced Tectonics managed by the University of Rome La Sapienza, an international conference was held in Rome, which saw a large Italian participation. The conference aimed to create a bridge between laboratory experiments and natural seismicity.
- As part of the Italian Geological Society Conference, 14-16 September 2021, Trieste, there were three sessions of interest to the IASPEI: S3 Oceanic lithosphere and subduction factory. Conveners and Chairpersons: Francesca Meneghini [University of Pisa], Martina Casalini [University of Florence], Michele Zucali [University of Milano Statale], Francesca Remitti [University of Modena and Reggio Emilia], Marco Ligi [CNR - ISMAR]; S6 Coupling deep mantle structures with surface processes and magmatism along the Tethyan margin. Conveners and Chairpersons: Paolo Ballato [University of Rome - Roma Tre], Paola Molin [University of Rome - Roma Tre], Barbara Orecchio [University of Messina], Pietro Sternai [University of Milan - Bicocca]; S7 Dynamics of the Earth interior. Conveners and Chairpersons: Marco Cuffaro [CNR - IGAG], Magdala Tesauero [University of Trieste], Valentina Magni [University of Oslo]

It is also noted that the publication rate of the Italian scientific community in the IASPEI field has remained substantially unchanged..

3. Activities carried on by Warner Marzocchi within the Union during 2021 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 2021, my activities as the Italian representative of the IASPEI were limited due to the pandemic. As a researcher, I have participated in numerous activities related to the field of seismology, including the preparation of the latest seismic hazard model for Italy, the work carried out in the framework of a European project H2020 RISE of which I am coordinator of a workpackage focused on the development of earthquake forecast models in the short term. I also participated as an invited speaker at the first conference in person organized as part of an ERC advanced Tectonics managed by the University of Rome La Sapienza, focused on comparing real and laboratory seismicity features.

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

IASPEI represents one of the most important organizations in the field of seismology. 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, 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 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.

Although IASPEI meetings are usually well attended by Italian researchers, the link between Italian scientists and IASPEI is mostly associated to that. Building a major and more continuative link between IASPEI activities and Italian community should be a major future task when the pandemic is definitely over.

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

In the IASPEI organization, nobody I know of.

7. If Union with CNR Commission, short summary about the 2021 CNR Commission activities

The pandemic has severely limited any direct activity.

8. Notes (if any)

No

9. Conclusions

It is important to reinforce this bond in addition to participation in the meetings organized by the IASPEI

Signature

A handwritten signature in blue ink, appearing to read "Walter Muehlebach".

Place and date: Rome, May 4, 2022