

IASPEI Newsletter

December 2023

IN THIS ISSUE

Foreword1
Phishing E-Mails
Updates from the IASPEI Early Career Scientists
(ECSs) Group
Latin American and Caribbean Seismological
Commission (LACSC) – V General Assembly
European Seismological Commission (ESC) –
39 th General Assembly
Asian Seismological Commission (ASC) –
15 th General Assembly
"Geoscience Connections" – New IUGG Film
Report from the Technical Meeting on Legacy Data
from Nuclear Tests 4
SEDI/IASPEI/ILP – Improving Earthquake Preparedness
Through Geoscience Education in the Himalaya
- a Report
Obituaries7
Meetings Calendar 11
General Information about IASPEI 12

Foreword

Dear Readers,

I hope this Newsletter finds you all well.

In this Newsletter, we have some information from the IASPEI Early Career Scientists Group, followed by some updates regarding the Regional Assemblies in 2024. Then, we have reports from an IUGG film project, a workshop organized by CTBTO on legacy data, and activities to improve the earthquake preparedness in Nepal.

Then, I must inform you with great sadness that three of our colleagues passed away. We remember them with obituaries.

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A MERRY HOLIDAY SEASON and a HAPPY and HEALTHY NEW YEAR 2024 to ALL OF YOU! Please do not forget to send me information or corrections about international conferences and workshops with IASPEI related topics. This list can only be complete and correct if I receive information about such events and can update the Meetings Calendar of future Newsletters.

All the best for a hopefully more peaceful 2024,

Johannes Schweitzer Secretary General

Phishing E-Mails

Last week, the IASPEI community, as well as IUGG and our sister Associations, were again targeted by phishing emails claiming to be sent by *e.g.*, the IASPEI President. Please remember that IASPEI will never address individual colleagues and ask for help, any type of money support or other type of business activities! The only official IASPEI email address is iaspei@norsar.no.

Updates from the IASPEI Early Career Scientists (ECSs) Group

On November 21st, we had our first Gettogether virtual event where ECSs around the world met to exchange ideas on how to foster collaboration, stay updated on IASPEI activities, and support ECSs from underrepresented regions to participate in the continental conferences.

For those who are not yet familiar with the IASPEI ECSs group, our overall aims are to (i) foster international exchange between IASPEI ECSs,

(ii) increase the visibility of IASPEI activities for ECSs, and

(iii) create spaces for IASPEI ECSs to

communicate with each other at conferences and general assemblies.

If you are an ECSs (= PhD + ~10 years) and would like to contribute actively to establishing this group or passively just being kept updated about the activities, please fill in this survey and indicate your interests:

https://ww3.unipark.de/uc/RISE/3f03/.

SAVE THE DATE: The next virtual Gettogether event will be on February 6th, 2024, at 06:00 am (UTC).

If you have any questions, just drop us an email: <u>irina.dallo@sed.ethz.ch</u> and / or <u>maria.papi-isaba@geosphere.at</u>.

Best,

María del Puy Papí Isaba and Irina Dallo

Latin American and Caribbean Seismological Commission (LACSC) – V General Assembly



Join us for the V Latin American and Caribbean Seismological Commission (LACSC) Assembly in the vibrant city of San Juan, Costa Rica! The meeting will take place in June 24 – 28, 2024. Thanks to the generous support of the International Union of Geodesy and Geophysics (IUGG) and the International Association of Seismology and Physics of the Earth's Interior (IASPEI), there will be grants available for students and Early Career Scientists. Engage with top-tier scholars and practitioners sharing groundbreaking insights through interesting sessions and dive deep into practical knowledge through hands-on workshops and discussions. Do not miss the opportunity to connect with colleagues. fostering meaningful connections and future collaborations. Last but not least, immerse yourself in the cultural tapestry, geological wonders, and tectonic marvels of Costa Rica. For the session details and registration information, visit the V LACSC Assembly Website: www.lacsc24.com. This assembly is a must-attend for students, researchers, and professionals dedicated to advancing knowledge and fostering positive impacts in Seismology and related fields across Latin America and the Caribbean.

Xyoli Pérez-Campos, LACSC Secretary General

European Seismological Commission (ESC) – 39th General Assembly



The 39th General Assembly of the European Seismological Commission will be held at Corfu Holiday Palace, Corfu, Greece, between 22 and 27 September 2024. The 2024 ESC meeting will emphasize the Mediterranean seismotectonics and seismic hazard, particular the southern Mediterranean, aiming to foster stronger collaboration within the whole region. The General Assembly aims to attract a strong participation of young researchers as well as senior experts.

The call for abstract submissions will open 20 December 2023.

The ESC GA will be preceded by the traditional one-week long (16 - 20 September 2024) Peter Bormann Young Seismologist Training Course (YSTC). More information on the YSTC will be provided soon on the meeting webpage.

Further details and updates can be found on the **ESC GA** website: <u>https://escgreece2024.eu</u>.

Asian Seismological Commission (ASC) – 15th General Assembly



The 15th ASC General Assembly will take place on November 3 – 8, 2024 in Antalya, Türkiye.

The theme for the 15th ASC General Assembly will be 'AI for Far and Deep', and the topics for the assembly will cover but are not limited to the newest research results from the recent catastrophic events. anthropogenic earthquakes, advanced techniques and AI application for seismology. Some workshops and training courses will be held on November 3 - 4, 2024, while field trips on earthquake expedition will be conducted on November 7 -8, 2024. The website for abstract collection and session suggestion will be made online in March 2024. More details will be announced later.

"Geoscience Connections" – A New IUGG Film



The IUGG project "Geoscience Connections" has the main goal to disseminate knowledge about geophysics and geodesy to the academic community and to the general public by connecting a variety of scientific subjects from eight associations of IUGG. The the "Geoscience documentary Connections" follows the same story as the animation movie "Earth-human connections"

(<u>https://www.youtube.com/watch?v=sOmFDiu</u> <u>gkis</u>), but including interviews with eight Early-Career Researchers (ECRs), representing each IUGG Association.

A description of the movie: "Geoscience Connections", which can be watched at <u>https://www.youtube.com/watch?v=r7XvObXn</u> <u>1jk</u>, leads you through a fascinating journey through the Earth's history. The timeline starts from the formation of our planet and across billions of years when humans became Earth's inhabitants. On the one hand, the intelligent human brain allowed for the development of various brilliant technologies and a complex society. On the other hand, humans have participated in the uncontrolled exploitation of natural resources and are thought to have caused many problems to other living beings on our planet. IUGG geoscientists help us to better

understand Earth processes, bring us hope for the problems humanity faces and solutions towards a more sustainable Earth.

Report from the Technical Meeting on Legacy Data from Nuclear Tests



A "Technical Meeting on Legacy Data from Nuclear Tests" was held from 27 to 29 September 2023 at the Vienna International Centre, Vienna, Austria. It was organized and sponsored by the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO).

It is a very important fact that a large amount of the more than 2000 nuclear tests that occurred since the first one (the famous Trinity test in July 1945) took place before digital waveform recording was generalized and, among them, all the aerial tests. Thus, study of the records of such nuclear tests, specifically the seismic records, relies in the proper use of analog legacy seismograms. Recognizing the facts, the CTBTO organized this first "Technical Meeting on Legacy Data from Nuclear Tests" to bring together experts involved in recovering historical geophysics or radionuclide recordings and experts in the analysis of seismic data for nuclear explosion monitoring.

Sessions were organized around three main topics:

(1) How to Recover and Digitize historical records?

(2) What data inventories are currently available? Where should a legacy data repository reside? And

Katja Pineiro

IASPEI Newsletter

(3) What can historic records teach us? What insights do new methods (*e.g.*, machine learning) give us from looking at old data?

The meeting was held in a hybrid format with a total of 54 participants: 36 attending on site, 7 online, as well as 11 members of the CTBTO staff. A total of 18 oral presentations and 4 posters were delivered. 3 breakout sessions, with vivid and interesting discussions and a final group discussion completed the meeting program.

Many presentations dealt with the actual status of several collections and archives of legacy seismograms, as well as databases related to them. Other presentations exploring methods to recover and digitize recordings from historical nuclear tests conducted during the 1950s through to the 1980s were presented, recognizing the critical value of preserving Making these valuable records. these recordings accessible in digital format offers opportunities for a new generation of researchers to study what signatures are encoded in the data. Also, a presentation dealing with legacy infrasound records and another on radionuclides were delivered. The executive secretary of CTBTO, Robert Flovd, participated in the meeting giving a speech, not included in the program, pointing to the increased importance that CTBTO is giving to the preservation for the future of the analog records of nuclear tests.

The group of experts participating in the meeting is not a closed one, it is open to new collaborators interested in the topic and able to contribute new knowledge to it. In this direction it was decided to open a distribution list facilitating the circulation of information and that this technical meeting should be followed by others in the future. Those interested in joining the group, please contact Megan Slinkard (Megan.SLINKARD@ctbto.org).

More information about the meeting can be found at <u>https://ctnw.ctbto.org/ctnw/event/9280</u> and <u>https://www.ctbto.org</u>.

Raphael de Plaen and Josep Batlló

SEDI/IASPEI/ILP – Improving Earthquake Preparedness Through Geoscience Education in the Himalaya – a Report

Since 2017, we have been running a successful educational seismology programme in Nepal which stands on two main pillars,

(i) the installation of low-cost seismometers in schools to span an operational seismic network, and

(ii) the training of local teachers to teach about earthquake preparation and related topics including hands-on activities with seismic sensors.

In the proposal submitted to IUGG for funding from the IYBSSD grants round, we stated an aim to develop a new module, namely the Earthquake Evacuation Procedure Guide, to continue educational activities in Nepal, and to extend the initiative to neighboring countries. Below, we present major activities done with the support of the funding.

Teachers' workshop

With the support of various institutions including IUGG, we have organised a two-day workshop for Nepali school teachers from 1 to 3 May 2023 in a centrally located city in Nepal, Pokhara. There were 49 teachers participating, of which most were science, computer science, and social science teachers, as well as several school principals. The workshop topics covered a broad spectrum of topics such as seismic hazard in Nepal, demonstration of a teaching tool for teachers: Sismobox, an earthquake evacuation procedure guide, earthquake location using school-seismometer recorded data, and an educational card game 'Beat the Quake'. The program was designed to offer a mixture of scientific talks, demonstrations, open question-and-answer sessions. All presentations were well received, and Nepali clarifications and translations have been

ensured where necessary. What has clearly gone well beyond our expectations was the open Q&A session. All speakers sat in front of the audience, and we received literally any type of question about the Earth, Earth Sciences, earthquakes, and much more, leading to great discussions.

Five speakers, including Prof. Dr. György Hetényi (University of Lausanne, Switzerland), Ms. Sarah Houghton (St. Michael Steiner School, United Kingdom), Dr. Fabrice Jouffray (University Côte d'Azur, France), Dr. Lok Bijaya Adhikari (National Seismological Center. Subedi Kathmandu), and Dr. Shiba (Seismology at School in Nepal) shared the stage for presentations, practical demonstrations, and discussions.



Group photo during the teacher workshop in Pokhara, Nepal, from 1 to 3 May 2023

Running educational activities in 2023

In 2023, we also conducted various educational activities in participating schools, such as special lectures on earthquake awareness, answering questions with demonstrations, monitoring the seismometer to keep it online 24/7, introducing an educational card game for students, etc. During our school visits, we took the opportunity to provide religious and scientific explanations for earthquakes in the Himalayas. This is crucial for local people, because most of them, especially in the countryside, believe that earthquakes are caused by God. This is also mentioned in various Hindu scripts, and it is difficult to convince older and poorly educated people of the scientific causes of the earthquake. We carefully explained the science of earthquakes to the public during our school visits.

Earthquake evacuation procedure guide: preparation and test

As part of our Seismology at School programme in Nepal, we developed an earthquake preparedness module called the Earthquake Evacuation Procedure Guide (EEPG). Since there is no specific protocol to follow when an earthquake happens in Nepal, it would be very helpful to save lives in future earthquake occurrences. The main goal of this guide is to teach students in schools how to maximise their chances of saving their lives during earthquake shaking. The document includes information on what students can do to prepare for earthquakes, how to improve earthquake safety, the school's emergency plan, and a proposed earthquake education schedule. All action steps before, during, and after an earthquake are explained in detail in the guide, with an additional section for teachers.

Below are the main steps of the Earthquake Evacuation Protocol:

1. Secure space by identifying hazards and securing moveable items.

2. Plan to be safe by creating a school emergency plan and deciding how one will communicate.

3. Organise emergency supplies in convenient locations.

4. Prepare and organise important documents and strengthen the school building.

5. Good response during an earthquake: Where are you? Outside or inside?

6. Improve safety after earthquakes by evacuating, helping the injured, and preventing further injuries or damage.

7. There will be a need to restore daily life by reuniting with others, repairing damage, and rebuilding the community.

Shiba Subedi, Seismology at School in Nepal and György Hetényi, University of Lausanne

(Copied from the IUGG E-Journal – 1 December 2023, <u>https://iugg.org/wp-</u> <u>content/uploads/2023/11/IUGGej2312.pdf</u>)

Obituaries

Josef Horálek (1948 – 2023)



After a long illness, Josef Horálek, a seismologist from the Institute of Geophysics at the Czech Academy of Sciences, passed away on 5 July 2023, several months before his 75th birthday. Josef worked in the Institute of Geophysics throughout his scientific career, entering in 1972 as a graduate of the Faculty of Electrical Engineering at the Czech Technical University in Prague. The Faculty produced several alumni who were important for the development of broad-band (BB) seismometry, which, at that time, represented a new era in instrumental seismology. The first of these alumni was Axel Plešinger, a world pioneer in BB seismometry. Josef joined Alex Plešinger's group at the Institute of Geophysics and became his principal co-worker. As such, Josef was involved in the development of the FBV seismic recorder, one of first BB seismometric systems. In the early 1970s, seismometric machinery looked guite different than it does today, and the FBV system itself involved a fairly voluminous set of accessories for storing, reading, and interpreting data. The FBV system consisted of a digital computer (which was the size of a wardrobe), its analog counterpart, a few tape recorders, a filter unit, a digitizer, a computer console, a paper tape puncher, a reader, etc., all occupying two office rooms. Josef was a wizard at maintaining all of this machinery and forcing it to work. In 1974, the system was deployed near Kašperské Hory, in former Czechoslovakia, making KHC the first permanent BB station in the world. The system was also installed in 1978 in Ksiaz (KSP), Poland. Some of the unique data from this pioneer BB era are still available at the IG CAS.

Josef could have filled his professional career by just maintaining and upgrading the BB machinery. However, he expanded his work elsewhere. In the summer of 1985, he and fellow co-worker from Axel's team, Petr Jedlička, begun to think about deploying a seismic station in West Bohemia, the site of repeating swarm earthquake activity in former Czechoslovakia. Their work was sped up by the occurrence of a magnitude 4.5 earthquake near Nový Kostel during the winter of 1985, which occurred during a strong earthquake swarm in 1985 – 1986.

During the 1985 – 1986 swarm, several temporary analogue and digital stations were set up in West Bohemia. After 1990, a digital network, known as Krasnet, and several other temporary digital stations, were established in the wider West Bohemia region by various Czech institutes. In parallel, Josef prepared a high-quality telemetered seismic network. known as Webnet, that was installed within the swarm region beginning in 1994. The original network consisted of Lennartz instruments and included both PCM 5800 and Mars 88 systems with short-period seismometers (SM3 and Le3D). The development of Webnet coincided with increased interest in West Bohemia by the geophysical community, interest sparked by the German KTB deep drilling project that took place 50 km from the epicentre of the 1985/1986 swarm. During the same period, to monitor KTB operations and seismic activity within the Vogtland region, local seismic networks were also installed in Bavaria and Saxony. Over the years, Webnet has been gradually upgraded and expanded, and now consists of 23 broadband online stations.

The high-quality seismograms recorded by Webnet made it possible to precisely analyse the processes leading to swarm seismicity, typical phenomenon within West Bohemia, where the term "swarm earthquake" was coined at the end of the 19th century. Beginning with precise relocation showing the fine structure of a hypocentre cluster and its migration. Josef and other collaborating researchers from the Institute of Geophysics focused on the analysis of seismic moment tensors. At the turn of the millennium, this work allowed the role of crustal fluids in fault weakening to be elucidated. The understanding of West Bohemian/Vogtland earthquake swarms led Josef to compare this of seismicity in different tectonic tvpe environments. To this end, Josef's group established a seismic network in the swarm-rich Revkianes peninsula in Iceland. After a period of dormancy, this decades-long work was rewarded with a series of seismic swarms, culminating in three recent eruptions. The highquality seismic data acquired during these events will provide a deeper understanding of the nature and genesis of earthquake swarms.

Although CAS researchers do not have direct access to undergraduate students, Josef was active as a lecturer during a great deal of his scientific career. In the Faculty of Science, at Charles University in Prague, Josef taught physics for students in applied basic geophysics and, in addition to seismology, also taught electric methods in geophysical survey. He was keen to seek teaching opportunities because he liked teaching and was interested in finding prospective students for future scientific work. Josef guided several postgraduates and his care for them was, indeed, exemplary. Whenever he found a weak point in the education of one of his students, he filled the gap by himself or arranged additional courses. For Josef, post-graduate students were not only pupils but colleagues.

Josef was a good scientist, and keen to learn and know more about nature and its mysteries. He was highly esteemed by those in his field of work. For us at the Institute of Geophysics, he was a 'guru' of seismic instrumentation and local seismicity. We also admired his interest in history, especially modern history, which was his great interest. Josef was a good man and firmly anchored in his Christianity, which was the light behind all his pursuits, both professional and private. He was ready to help in everything with nobility and gentle humor. We will miss our friend Josef daily.

Jan Šílený and Tomáš Fischer

Lev Pavlovich Vinnik (1935 – 2023)



Lev Pavlovich Vinnik, an outstanding geophysicist and world-famous seismologist, and one of the leading members of the Institute of Physics of the Earth of the Russian Academy of Sciences, passed away on September 27, 2023, at the age of 88.

L. P. Vinnik was born on March 29, 1935, in Smolensk. In 1957, he graduated from the Faculty of Geology of Lomonosov Moscow State University, majoring in geology and geophysics. In 1957 – 1959, he wintered in Antarctica as part of the 3rd Continental Antarctic Expedition. Since 1959, he was employed at the Institute of Physics of the Earth (IPZ) in Moscow. After defending his PhD thesis in 1966 in which he studied the internal structure of the Earth, he first worked on the seismic detection of nuclear explosions. He was the head of the Seismological Research Laboratory and the Department of the Internal Structure of the Earth at IPZ for many years.

Vinnik's research in geophysics focused on the investigation of the internal structure of the Earth based on seismic data. His pioneering methods for studying the deep structure of the Earth using converted waves and shear wave splitting are widely used throughout the world. А talented and critical observational seismologist, in the 1970s, he first showed the detection of the 400 and 660 km discontinuities using converted P to S waves (*i.e.*, also known as "receiver functions"), a methodology which he perfected over the years and applied broadly to the study of layering in the Earth's interior in a wide range of depths, from the crust to the core. He thus discovered the presence of partial melt at depths of several hundred kilometers. where this phenomenon was previously unknown. He carried out detailed studies of the structure of the crust and upper mantle of the Earth to depths of 200 - 300 km for a number of continental regions (e.g., Tien Shan, Indian Shield. Himalayas, Tibet, Greenland, Fennoscandia, South Africa) and beneath oceanic islands. He proposed new ideas about the structure of the lithosphere of the Indian subcontinent, showing that the Archean mantle keel of the Indian shield was reworked by younger processes, while the part of the Indian shield on which the western Himalayas, Ladakh and western Tibet were built was preserved. He provided insights on the deep structure beneath the Azores and Cape Verde hot spots, down to lower mantle depths. He proposed new ideas about the nature of the 520-kilometer seismic boundary, showing that this boundary may represent the base of a low-velocity layer in the upper mantle transition zone.

Vinnik proposed a methodology to determine azimuthal anisotropy of the upper mantle using the splitting of SKS core-refracted waves and applied it to many areas of the world, distinguishing frozen anisotropy in the lithosphere from anisotropy produced in the asthenosphere by present day mantle flow. For example, he determined that the transition from frozen to active anisotropy occurs around a depth of 160 km in the Kalahari craton, thus for the first time providing an explanation for the large changes in the properties of mantle xenoliths recovered from depths larger than 160 km. He first reported the splitting of shear waves diffracted along the core-mantle boundary and showed that this indicated the presence of seismic anisotropy at the base of the earth's mantle. He discovered and quantified the contribution of P waves to microseismic noise.

Last but not least, he was one of the first to document, using broadband observations of core phases, that anisotropy increases towards the center of the Earth's inner core.

Lev Vinnik is the author of more than 200 publications. He was elected a member of the European Academy (Academia Europae, 1993) and a fellow of the American Geophysical Union (AGU). He was awarded the Alexander von Humboldt Prize (Humboldt Foundation, Germany), the B. B. Golitsyn prize of the Russian Academy of Sciences (RAN), the Beno European Gutenberg Medal of the Geosciences Union (EGU, 2004), the Harry F. Reid Medal of the Seismological Society of America (SSA, 2016), and the Ernst von Rebeur-Paschwitz Medal of the German Geophysical Society, (DGG, 2017).

An exceptionally talented observational seismologist has left us. He will be missed for his sharp mind, enthusiasm and biting sense of humor.

Larissa Makeyeva, Sergei Oreshin, Barbara Romanovicz and Steve Roecker

Søren Gregersen (1942 – 2023)



On 28 September 2023, Søren Gregersen Dr. Scient. State Seismologist Emeritus, passed away in Hørsholm, Denmark, at the age of 81.

Søren Gregersen was born on 27 April 1942 and from a young age had a strong interest in science. At that time growing up in Denmark, science was dominated by Niels Bohr, and major advances in physics were being made. In October 1960, at the age of 18, Søren was selected along with an American scout, to live for six months at the Camp Century base, where drilling into the Greenland ice sheet was underway. During his time at the base, Søren worked with researchers and the US military staff running the base and operating a nuclear reactor for a power supply. In regular letters, Søren's adventures on the Greenland ice sheet were published in Danish newspapers, making him famous throughout Denmark as "Søren the scout". At University of Copenhagen, Søren geophysics studied and specialized in seismology, earning the master of science degree in 1968. After completing his degree, Søren was employed as a geodesy assistant at the Danish Geodetic Institute, where the seismic service at that time was hosted and that operated and reported on data from seismographs in Denmark and Greenland since

1927. In 1970 Søren went to the Lamont-Doherty Geological Observatory at Columbia University in New York, U.S.A., where he graduated with a Ph.D. in seismology in 1974. His thesis was on the amplitudes of horizontally refracted Love waves. As a researcher, he returned to the Danish Geodetic Institute and continued his work in seismology focusing on earthquakes in Denmark and Greenland, Lg wave propagation and Lg wave tomography. Søren's studies on Lg waves constituted a major part of his Dr. scient thesis which he defended successfully at University of Copenhagen on 6 December 1985. Søren presented his research on many journeys around the world and often was provided with gifts for Inge Lehmann, which he presented to her during coffee at her apartment in Copenhagen.

In 1994 the seismic service was transferred to the National Survey and Cadastre where Søren was appointed senior researcher. In 1997, Søren was appointed State Seismologist and headed the section managing the seismic service. In addition, Søren was appointed affiliate professor at University of Copenhagen. In 2004 the seismic service was transferred to the Geological Survey of Denmark and Greenland, where Søren continued his work as State Seismologist until 15 November 2009, when he retired.

After his retirement Søren enjoyed life with his wife Allis and their grandchildren. Søren also received the Emeritus title at the Geological Survey of Denmark and Greenland, publishing several papers mainly focused on postglacial uplift and earthquakes in Scandinavia.

I first met Søren in the mid 1990s, where he was a regular visitor at the Institute of Geophysics where I did my studies, and we later became close colleagues at the seismic service. Søren was always welcoming seismology students as a supervisor, providing lectures, leading study groups and much more. We were many students across Europe that benefited from Søren's leadership during the Teleseismic Tomography experiment across the Tornqust Zone, in short the TOR project, one of the first large multi-national deployments of broad band and short period digital mobile seismic stations, in Germany, Denmark and Sweden. Traveling with Søren was always a great pleasure, especially when Allis jointed Søren at the many conferences. Søren had an enormous network the research community from in his engagement at the IUGG, the CTBTO, and many other international collaborations. He was always eager to share his network and to bring people together with a contagious kindness, enthusiasm, and optimism.

Peter Voss, 12 October 2023

Meetings Calendar

We report below forthcoming meetings relevant to the interests of IASPEI scientists. If you are aware of events not listed below or changes regarding these events, please inform the Secretary General. The meeting calendar is also available on the IASPEI website.

<u>2024</u>

EGU General Assembly 2024

April 14 – 19, 2024, Vienna, Austria URL: <u>https://www.egu24.eu/</u>

SSA Annual Meeting 2024 April 29 – May 3, 2024, Anchorage, Alaska, USA URL: <u>https://meetings.seismosoc.org/</u>

34th Conference on Mathematical Geophysics

June 2 – 7, 2024, Mumbai, India URL: <u>https://cmg2024.org/</u>

SEDI Meeting 2024

June 23 – 28, 2024, Great Barrington, Western Massachusetts, USA URL: <u>https://sedi-conference-2024-</u> <u>2675c.ingress-baronn.ewp.live/</u>

21th Annual Meeting AOGS

June 23 – 28, 2024, Pyeongchang, Gangwondo, Rep. of Korea URL: https://www.asiaoceania.org/aogs2024/public. asp?page=home.asp

LACSC V General Assembly

June 24 – 28, 2024, San José, Costa Rica URL: <u>https://www.lacsc24.com</u>

18th World Conference on Earthquake Engineering WCEE2024 June 30 – July 5, 2024, Milan, Italy URL: <u>https://www.wcee2024.it/</u>

EMSEV 2024

September 2024, Crete, Greece URL: <u>https://emsev-</u> iugg.org/posts/news11.html

39th ESC General Assembly

September 22 – 27, 2024, Corfu, Greece URL: <u>https://www.escgreece2024.eu/</u>

SSA Fall Topical Meeting 2024

Photonic Seismology: Lighting the Way Forward

October 7 – 10, 2024, Vancouver, BC, USA URL: <u>https://www.seismosoc.org/photonic/</u>

4th AfSC General Assembly October 2024, South Africa

15th ASC General Assembly November 3 – 8, 2024, Antalya, Türkiye

AGU Fall Meeting

December 9 – 13, 2024, Washington DC, USA URL: https://www.agu.org/Fall-Meeting

<u>2025</u>

SSA Annual Meeting 2025 April 14 – 18, 2025, Baltimore, MD, USA URL: <u>https://meetings.seismosoc.org/</u>

IASPEI 43rd Scientific Assembly as Joint Assembly with IAGA

August 31 – September 6, 2025, Lisbon, Portugal

AGU Fall Meeting

December 15 – 19, 2025, New Orleans, Louisiana, USA URL: <u>https://www.agu.org/Fall-Meeting</u>

<u>2026</u>

AGU Fall Meeting December 7 – 11, 2026, San Francisco, California, USA URL: <u>https://www.agu.org/Fall-Meeting</u>

<u>2027</u>

IASPEI 44th General Assembly IUGG 29th General Assembly Incheon, Rep. of Korea

General Information about IASPEI

The International Association of Seismology and Physics of the Earth's Interior [IASPEI] is one of the eight Associations of the International Union of Geodesy and Geophysics [IUGG].

The other seven IUGG Associations are:

- International Association of Cryospheric Sciences
 [IACS]
- International Association of Geodesy [IAG]
- International Association of Geomagnetism and Aeronomy [IAGA]
- International Association of Hydrological Sciences
 [IAHS]
- International Association of Meteorology and Atmospheric Sciences [IAMAS]
- International Association for the Physical Sciences
 of the Oceans [IAPSO]
- International Association of Volcanology and Chemistry of the Earth's Interior <u>[IAVCEI]</u>

Scientific Assemblies

IASPEI holds an Ordinary General Assembly every four years in conjunction with each Ordinary General Assembly of IUGG. Between the General Assemblies, IASPEI holds a Scientific Assembly, sometimes as joint meeting with one of the other Associations of IUGG.

Participation in IASPEI Activities

Since July 2015, all scientists participating in IASPEI activities are counted as members of IASPEI (see <u>http://www.iaspei.org/about/statutes-and-by-laws</u>). IASPEI welcomes all scientists throughout the world to join in seismological research.

IASPEI is subdivided into several Commissions, many of which have working groups for the study of particular subjects in their general areas of interest. On occasion, these internal IASPEI groups issue their own newsletters or circulars, and many maintain their own websites. At the IASPEI Assemblies, the groups organize specialist symposia, invite scholarly reviews and receive contributed papers that present up-to-theminute results of current research. The IASPEI website gives, or provides links to, information on the range of IASPEI activities.

The IASPEI Website

The IASPEI website is hosted by the International Seismological Centre (ISC) in Thatcham, UK and can be found at <u>http://www.iaspei.org/</u>.

Contacting IASPEI

The Secretary General is the main point of contact for all matters concerning IASPEI.

Dr. Johannes SCHWEITZER / IASPEI c/o NORSAR Gunnar Randers vei 15; PO Box 53 N-2007 Kjeller Norway

E-mail: iaspei@norsar.no