

IASPEI Newsletter

June 2017

Please don't forget to inform me about international conferences and workshops with IASPEI related topics. Then, I can add these events to the Meetings Calendar of future Newsletters.

Johannes Schweitzer Secretary General

Foreword

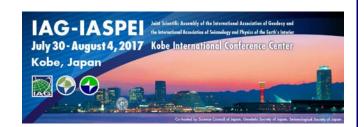
Dear Readers,

Soon the IASPEI community gathers together with IAG for their joint Scientific Assembly in Kobe, Japan. We start the newsletter with some information about it.

The second Newsletter contribution contains information about the IASPEI Statutes and By-laws. Then, we have a report about the raise of a monument to honour Inge Lehmann in Copenhagen, Denmark, some information regarding an IRIS workshop in South-Africa and news from the IUGG.

Also in this issue of the IASPEI Newsletter, I must inform you with great sadness that two of our colleagues passed away. We remember them in the obituaries.

Joint Scientific Assembly of IAG and IASPEI 2017



The joint Scientific Assembly of IAG (International Association of Geodesy) and IASPEI will be held at the Kobe International Conference Center, Japan, from July 30 through August 4, 2017.

The proposed scientific program consists of in total 43 symposia (7 IAG, 27 IASPEI and 9 Joint symposia), and more than 1000 abstracts have been accepted for oral and poster presentations. The scientific program and scheduled business meetings are now available on-line.

Please visit the conference website: http://www.iag-iaspei-2017.jp/ that has the latest information about the scientific program, registration, accommodation and travel information.

Some nationalities need visa for travelling to Japan. Please check for further information the web-page http://iag-iaspei-2017.jp/visa_information.html.

We are looking forward to meeting you in Kobe!

IASPEI Statutes and By-laws

After moving the IASPEI Secretary to Norway in 2015/16, IASPEI had to be registered in Norway with a Norwegian organization number. Due to Norwegian legislation, IASPEI must add a small paragraph in its Statutes concerning the handling of its finances in the case of an unlikely dissolution of IASPEI. This proposed change was discussed by the IASPEI ExeCom and a few other not very consistent or vague formulations were discovered. Now, a new version of the Statutes and By-laws is ready and has to be adopted by the National representatives of the Association during the Closing Plenary in Kobe.

The proposed new version of the IASPEI Statutes and By-laws can be downloaded from the IASPEI web-site (<u>iaspei.org</u>).

First monument for Inge Lehmann revealed at Copenhagen University

Danish seismologist Inge Lehmann (1888 – 1993) is best known for presenting the first evidence of the Earth's inner core in 1936. Her active research career as a seismologist began in 1928, continued well into the 1970s, and earned her the reputation as "the grande dame" of modern seismology.

Despite her international success, Inge Lehmann was never well known outside the geophysical science community in Denmark. Her contribution to science was first officially acknowledged in Denmark on 15 May 2017 when a monument in her honour was revealed by Denmark's Minister for Higher Education and Science, Søren Pind. The monument is situated in front of the University of Copenhagen, next to Niels Bohr, making her the first female scientist to be commemorated by the University. The artist Elisabeth Toubro chose an abstract form for the monument that celebrates what mattered for Inge Lehmann: Her science rather than herself as a person.

Born in a time when few women could hold senior scientific positions, Inge Lehmann had an extraordinary career: In 1928, she was appointed Head of the Seismic Section at the Danish Geodetic Institute, where she published evidence for the existence of the Earth's inner core in 1936. After her retirement in 1953, she continued her work at research institutions in the USA, and in 1964, she proved a velocity discontinuity at a depth of 220 km, known today as the "Lehmann Discontinuity".

During Inge Lehmann's lifetime, seismology developed from a small, isolated discipline to a large, well-funded research area. This growth took place against the backdrop of the Cold War with its political and military agendas. Seismology attracted special interest because it provided tools for the detection of nuclear weapons tests.

Her private archive was handed over to the Danish National Archive in 2015 and it contains more than 4,000 letters and documents relating to her research. As an important scientist in her field, she corresponded with many of the leading seismologists of the time. Few of her private letters have survived.

Inge Lehmann has often been portrayed as a trailblazing female scientist, unwilling to accept discrimination in her pursuit of an academic career. However, her personal archive at the Danish National Archive shows that Inge Lehmann had to accept restrictions in her academic career due to her gender, and only by being pragmatic about her situation did she succeed in establishing herself as a professional scientist.

The celebration of her achievement by the University of Copenhagen was the highpoint of several years of public interests beginning with a 2015 documentary on Danish national television about Inge Lehmann's life and discoveries, followed by a Google "doodle" on May 13, 2015 in celebration of her 127-years

birthday, and the naming of several Danish streets after her. Finally, the Carlsberg Found is funding a two-year research project, by this author, to write her biography.



According to the artist Elisabeth Toubro, the Lehmann monument shows a wave slicing through the sculpture and striking a round core that causes it to change direction. The body of the sculpture is cleaved in two, suggesting an earthquake and the related seismographic readings. The side of the monument shows an outline portrait of Inge Lehmann.

Given that Inge Lehmann was a very private person that always put her scientific work first, she would undoubtedly have approved that the symposium that accompanied the official revealing of the monument featured several scientific talks. The symposium's first speaker was senior seismologist Trine Dahl-Jensen from the Geological Survey of Denmark and Greenland, who gave a talk about Inge Lehmann's contributions to seismology, and on the website created for the occasion, emeritus Søren Gregersen explained about her research on the inner core.

That it was the University of Copenhagen that awarded her the honour of a monument is a source of amusement for those who knew Inge Lehmann since it was the same university that in 1951 rejected her as candidate for the first professorship in geophysics, only in 1968 to award her an honorary doctorate. A fact that was indirectly acknowledged by the university's Prorector Lykke Friis in her welcome speech.

Links of interest:

Website for the Lehmann monument: http://lehmann.ny-carlsbergfondet.dk/en.html

Documentary about Inge Lehmann (Danish only):

https://www.experimentarium.dk/jorden/ingelehmann-jordens-kerne

Research project on Inge Lehmann: http://www.carlsbergfondet.dk/da/Forskningsa ktiviteter/Forskningsprojekter/Postdoc_stipend ier-i-Danmark/A-Lif-Lund-Jacobsen_Inge-Lehmann-and-the-rise-of-internationalseismology-1925_1970

Lif Lund Jacobsen Danish National Archives, Copenhagen, Denmark

IRIS Data Services Workshop in South-Africa

The Incorporated Research Institutions for Seismology Data Services (IRIS DS), in cooperation with the International Federation of Digital Seismograph Networks (FDSN), is organizing a workshop focused on the management of metadata and time series data from seismological networks. The goal is to enable open data sharing and exchange of ideas between networks in Africa as well as with the global seismological community. Primary financial support for the workshop is provided by the National Science Foundation through the SAGE grant to IRIS. (NSF Grant number EAR-1261681).

The local host for the workshop is the Council for Geosciences. The Council along with IASPEI are co-sponsors of the workshop.

Workshop Scope

The objective of the workshop is to assist operators of seismic networks in the generation of time series and metadata that describe their seismic stations. We shall provide training in a variety of areas including: seismic station installation and instrumentation, methods of transmitting real time data, development of station metadata, how to access data from the FDSN data center operated by IRIS, and introduce participants to the IRIS MUSTANG Quality Assurance system that monitors the quality of seismological data. We expect participants to come away from the workshop with all the necessary knowledge to set up and maintain their own database and to link their network to the growing global network for data access.

A tutorial on ObsPy, a Python based toolkit for seismological observatories, will be presented. ObsPy is an open-source project dedicated to providing a Python framework for processing seismological data. It provides parsers for common file formats, clients to access data centers and seismological signal processing routines that allow the manipulation of seismological time series.

The workshop will also provide an introduction and training to the workshop participants on the SeisComp3 seismological network management system. The SeisComp3 system supports several FDSN standard methods of accessing data and is available at no cost to seismic network centers. Operating a SeisComp3 system allows networks to participate in a Federated FDSN data center system.

More information can be found at http://ds.iris.edu/ds/workshops/2017/08/managing-data-from-seismic-networks/

Tim Ahern Director of IRIS Data Services

News from the IUGG

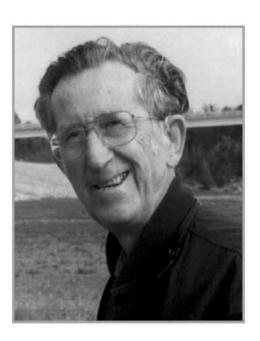
IUGG is publishing a monthly electronic journal with different information relevant for IUGG and its Associations. To see this

eJournal please visit this web-page: http://www.iugg.org/publications/ejournals/

On 12 June 2017, IUGG adopted and published a statement with the title "The Earth's climate and responsibilities of scientists and their governments to promote sustainable development". This statement was drafted by the IUGG Union Commission on Climatic and Environmental Change (CCEC) and intensively discussed with the IAMAS Executives, before submitting to the IUGG Bureau. You can download the document with this link:

http://www.iugg.org/resolutions/IUGGstatement ParisAgreement USA 12Jun2017.pdf

OBITUARIES



Jean-Claude De Bremaecker (1923 – 2016)

Prof. Dr. Jean-Claude De Bremaecker, Associate Secretary General (1963 – 1971) and Secretary General (1971 – 1979) of IASPEI and IUGG Fellow, died 92 years old on 11 February 2016. Jean-Claude De Bremaecker was born on 2 September 1923 in Antwerp, Belgium. After serving in the Belgian Army during World War II, he received a Master of Science in Mining Engineering from the University of Leuven, Belgium in 1948. In the same year, he moved for further studies to USA and received a Master of Science in Geology from the Louisiana State University in 1950 and a PhD in Geophysics from the University of California at Berkeley in 1952 with a thesis on Pn amplitudes at regional distances.

During his long career, Jean-Claude
De Bremaecker worked as senior researcher
in Congo and as postdoc in Columbia and at
Harvard. Since 1959 and until his retirement,
he was affiliated with Rice University in
Houston, Texas, as Professor for Geophysics.
In 1966, he was also research associate at
the University of California, Berkeley; in 1977,
he was visiting member of the University of
Texas, Austin, and in 1980 – 1981, he was
visiting professor at the University of Paris. In
1985, he published his often-cited textbook
"Geophysics, the Earth's Interior", which was
reprinted in 1991.

Jean-Claude De Bremaecker is remembered as a cheerful character, full of wit and excellent company, who worked hard for the Association during sixteen years as Associate Secretary-General and later as Secretary-General.

J. Schweitzer based on information received from Robin Adams, who followed Jean-Claude De Bremaecker as IASPEI Secretary General and several Internet sources



Valentin Ivanovich Ulomov (1933 – 2017)

Principal researcher of the Laboratory of Seismic Hazard of the Schmidt Institute of Physics of the Earth, Russian Academy of Sciences, suddenly passed away on June 6th, 2017. He was a wonderful person, an outstanding seismologist and a wise leader. He had exceptional organizational skills, ability to communicate with many specialists, and was a stunning speaker.

Valentin Ulomov was a corresponding member of AS of the Uzbek SSR, Doctor of Physical and Mathematical Sciences, State prize winner of the Russian Federation (RF) and the Uzbek SSR in science and technology. He was born on January 7th, 1933 in Tashkent in a family of teachers. In 1955, he graduated from the Central Asian Polytechnic Institute (Tashkent).

His academic career began in 1955 at the Geophysical Institute of AS USSR (from 1956 – Institute of Physics of the Earth) as research assistant. In 1959, a young active scientist, he was asked to lead the Tashkent seismic station. In 1960 in this position, he was transferred from IPE to the Uzbekistan Academy of Sciences. During the infamous Tashkent earthquake in 1966, it was Valentin Ulomov who provided people with the latest

news about the progress of seismic process. In 1990, he returned to IPE in Moscow, formed there the Laboratory of Continental Seismicity, became its head and headed the work on the creation of the new map of the General seismic zoning of Russia.

The academic career of V. Ulomov was quite successful. He defended his Master's thesis (1964) and doctoral thesis (1974) at the Institute of Physics of the Earth (Moscow). In 1964, he initiated the creation of the Center of Seismic Observations of Central Asia and Kazakhstan in Tashkent and was its head for 15 years, in 1966 renamed the Institute of Seismology, AS Uzbekistan. In 1984, he was elected as a corresponding member of the Uzbek Academy of Sciences.

His fields of research were fundamental and applied seismology, structure and dynamics of the lithosphere, physics of the earthquake source and prediction, global and regional seismicity, seismic regionalization and seismic zoning. In 1997, a set of maps of the General Seismic Zoning of Northern Eurasia – GSZ-97 was created under Ulomov's leadership using new methodological principals. In 2002, the maps of GSZ-97 were awarded the State Prize of the RF in science and technology. In the 1990s, V. Ulomov actively participated in the Global Seismic Hazard Assessment Program (GSHAP) as a project coordinator of Northern Eurasia.

The scientific heritage of V. Ulomov is extensive. He authored more than 400 scientific monographs, articles, inventions. He discovered previously unknown natural phenomenon of predicative nature – the radon emission before earthquakes. In 2017, V. Ulomov took an active participation in writing articles for the Great Russian Encyclopedia and the National Atlas of the Arctic.

Valentin Ulomov worked hard and productively, sometimes to the detriment of his health. He died as a soldier, on duty. A few hours before his death he was actively exchanging emails with his colleagues. He passed away a coryphaeus of science and his loss, unfortunately, is irreplaceable.

Valentin Ulomov was a man of big heart. His heritage is priceless. It is enough to look at the materials that are generously posted on his personal website – http://seismos-u.ifz.ru. The website was entirely created by V. Ulomov and performs an educational and historical-biographical function. It is well-deserved popular not only among colleagues-seismologists, but also among construction workers, graduates, students and school children. Valentin was an outstanding draftsman. He painted oil portraits, nature, still lifes, and made pencil sketches.



V.I. Ulomov. Pines on the dunes in Lielupe.
Jurmala (Latvia). 1977

The bright memory of Valentin Ivanovich Ulomov will forever remain in the hearts of those who had the opportunity to work, be friends and meet him.

Alexey Zavyalov Schmidt Institute of Physics of the Earth, Russian Academy of Sciences

Meetings Calendar

We report below titles, dates, places and websites of the forthcoming meetings relevant to the interests of IASPEI scientists. If you are aware of events not listed below, please inform the Secretary General.

2017

CTBTO, Science and Technology (SnT)

June 26 – 30, 2017, Vienna, Austria

URL: https://www.ctbto.org/specials/snt2017/

International conference «The development of seismological and geophysical monitoring systems of natural and technological processes in the Northern Eurasia region»

July 11 - 13, 2017, Moscow, Russia

First Circular:

http://www.ceme.gsras.ru/new/eng/conf/files/2 017 Moscow.pdf

IAG - IASPEI: Joint Scientific Assembly

July 30 - August 4, 2017, Kobe, Japan URL: http://www.iag-iaspei-2017.jp/

AOGS 2017 14th Annual Meeting

August 6 – 11, Singapore

URL:

http://www.asiaoceania.org/aogs2017/public.a sp?page=home.htm

Managing Data from Seismic Networks

August 20 — 26, 2017, Pretoria, South Africa **URL**:

http://ds.iris.edu/ds/workshops/2017/08/mana ging-data-from-seismic-networks/

XII International seismological workshop "Modern Methods of Processing and Interpretation of Seismological Data"

September 11 – 15, 2017, Almaty, Kazakhstan

First Circular:

http://www.ceme.gsras.ru/new/eng/conf/files/2 017 Kazakhstan.pdf

9th High Pressure Mineral Physics Seminar

September 24 – 28, 2017, Saint Malo, France URL: https://hpmps-9.sciencesconf.org/

6th Scientific Biennial Conference "Problems of Complex Geophysical Monitoring of the Russian Far East"

October 1 – 7, 2017, Petropavlovsk-

Kamchatsky, Russia

URL: http://www.emsd.ru/en/conf2017/

2nd Cargèse school on seismogenesis

October 2 – 6, 2017, Cargèse, France URL: http://earthquakes2.sciencesconf.org/

AGU Fall Meeting

December 11 – 15, 2017, New Orleans, USA URL: http://fallmeeting.agu.org/2016/2017-fallmeeting-new-orleans/

2018

EGU General Assembly 2018

April 8 – 13, 2018, Vienna, Austria URL: http://www.egu2018.eu/

Latin American and Caribbean Seismological Commission (LACSC) and **Seismological Society of America (SSA)** joint meeting

April 24 – 26, 2018, San Juan, Puerto Rico

AOGS2018 15th Annual Meeting

June 3 - 8, 2018, Hawaii, USA

16th European Conference on Earthquake **Engineering**

June 18 – 21, 2018, Thessaloniki, Greece URL: http://www.16ecee.org/

SEDI 2018

Summer 2018, Edmonton, Canada

36th General Assembly of the European **Seismological Commission (ESC)**

End of August / Beginning of September, 2018, Valletta, Malta

AGU Fall Meeting

December 10 – 14, 2018, Washington D.C., USA

2019

EGU General Assembly 2019

April 7 – 12, 2019, Vienna, Austria URL: http://www.egu2019.eu/

27th IUGG General Assembly

July 8 – 17, 2019, Montreal, Canada

AOGS2019 16th Annual Meeting

July 28 - August 2, 2019, Singapore

AGU Fall Meeting

December 9 - 13, 2019, San Francisco, USA

2020

2021

AOGS2021 18th Annual Meeting

August 1 - 6, 2021, Singapore

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 IUGG Associations are:

Int'l Association of Cryospheric Sciences [IACS]

Int'l Association of Geodesy [IAG]

Int'l Association of Hydrological Sciences [IAHS]

Int'l Association of Meteorology and Atmospheric Sciences [IAMAS]

Int'l Association for the Physical Sciences of the Oceans [IAPSO]

Int'l Association of Geomagnetism and Aeronomy [IAGA]

Int'l Association of Volcanology and Chemistry of the Earth's Interior [IAVCEI]

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 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 http://www.iaspei.org/statutes.html). 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 web sites. 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 web site gives, or provides links to, information on the range of IASPEI activities.

The IASPEI Web site

IASPEI can be found on the web at: http://www.iaspei.org/

Contacting IASPEI

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

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