IASPEI Newsletter

April 2019

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Foreword

Dear Readers,

At first, I have some more information about the General Assembly in Montréal. Then, it is a pleasure to announce that the 2019 IASPEI Medallist is our former President Prof. Brian L. N. Kennett. The Medal ceremony will be held during the Opening Plenary of the IASPEI General Assembly in Montréal, Canada 12 July 2019.

Finally, I must inform you with great sadness that one of our colleagues passed away. We remember him in the obituaries.

Please do not 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

IUGG in Montréal, Canada

The preparation of the 2019 General Assembly is going on. With almost 5000 submitted abstracts we hope for a successful and interesting conference. All people submitting an abstract are being informed these days if and how (oral/poster) their abstract has been accepted. During the six days of IASPEI presence, about 150 hours of IASPEI related Symposia are planned. The time schedule of the symposia is ready and will be published on the web soon.

Please visit the conference website http://iugg2019Montréal.com/ that has the latest information about the scientific program, registration, accommodation and travel information. Also applications for exhibit booths are accepted at the conference website.

Early Bird registrations are still possible until 25 April 2018. The traditional IASPEI Dinner is planned for the evening of Monday 15 July. More information will be distributed later on the Assembly website.

We are looking forward to meeting you in Montréal!

The 2019 IASPEI Medal goes to Brian Leslie Norman Kennett

In 2013, IASPEI began to award a Medal for "sustaining IASPEI goals and activities and for scientific merits in the field of seismology and physics of the Earth's interior". The IASPEI Bureau is proud to announce that it has unanimously selected as recipient of the 2019 IASPEI Medal **Brian Leslie Norman Kennett**, for his outstanding career contributions to seismology and IASPEI.

Brian L. N. Kennett, IASPEI Medal 2019

Laudatio

Brian received his Ph.D. in Theoretical Seismology from the University of Cambridge in 1973. He was a Lindemann Fellow at IPGP, University of California, San Diego and Lecturer at the University of Cambridge from 1976 to 1984. He moved to the Research School of Earth Sciences (RSES), Australian National University (ANU) in 1984 and engaged in research and education as a fellow, professor, and director. He was Director of RSES from September 2006 to January 2010 and Director of the Australian National Seismic Imaging Resource (ANISR) from 2002 to 2014. He is currently Emeritus Professor of Seismology, ANU College of Science.

During his doctoral studies at Cambridge, Brian developed a novel method named the wave propagator to compute seismograms in layered models with control of reverberations of up-going and down-going waves in layered media. He combined this with observational studies of seismic waves across a wide range of distance scales - from a few kilometers, as in shallow reflection experiments for geophysical prospecting, to regional and teleseismic distances for representing a class of seismic phenomena due to large-scale layering in the earth. After moving to Australia, he conducted a systematic study of the Australian region by deploying many large-scale broadband seismic arrays; notably the SKIPPY project in collaboration with Rob van der Hilst. Following a sequence of efforts, this resulted in the 2012 Australian Seismological Reference Model (AuSREM).

Brian's innovations in theoretical seismology (including his profound and wide-ranging observational studies, ranging across the regional and teleseismic wavefield) aimed at extracting detailed information regarding the nature of Earth's structure and the character of seismic sources, have had a lasting, significant impact on geophysics.

One of his notable contributions to seismology is the construction of a global traveltime table (iasp91) with Bob Engdahl, which provides accurate estimates of the traveltimes of various seismic phases, significantly improving upon the classic Jeffreys-Bullen traveltime tables. The significance of this study is evidenced by the fact that there are over 2,100 citations of this paper to date. The iasp91 traveltime tables, which was subsequently improved with additional seismic

data (giving the ak135 tables), have now become the standard for international organizations like ISC, USGS NEIC and EMSC, as well as for many researchers when determining source locations using seismic phases; they are also extensively used as the reference structure for high-resolution seismic tomography using many seismic phases.

Brian's development of joint seismic tomography, using *P*- and *S*-wave arrival-time data, led to the extraction of the distribution of bulk and shear moduli at depth. This enabled the quantitative interpretation of heterogeneous Earth structures in terms of thermal and compositional variations. The results of tomography at higher frequencies, with a particular emphasis on fine-scale heterogeneities in the Earth, lead to efforts among seismologists, mineral physicists, and geodynamicists to interpret the nature and origin of lithospheric heterogeneities.

The publication of his many textbooks on the seismic wavefield and crustal structure based on his excellent wide-ranging theoretical and observational studies has greatly contributed to dissemination of seismological theory and research results and the development of new quantitative waveform modeling approaches.

Brian has been an outstanding leader in support of the international community as president of the IASPEI from 1999 to 2003 and editor of *Geophysical Journal International (for more than 20 years)*, *Physics of the Earth and Planetary Interiors,* and *Earth and Planetary Science Letters*.

Among his awards and recognitions are the University of Cambridge Smith's Prize and Adam's Prize, and election to Fellow of the American Geophysical Union, Australian Academy of Sciences, Royal Society, and Royal Astronomical Society. He received the Jaeger Medal for Australian Earth Sciences from the Australian Academy of Sciences, the Murchison Medal of the Geological Society of London, the Gutenberg Medal of the European Geosciences Union, the Finders Medal of the Australian Academy of Sciences, and the Lehmann Medal of the American Geophysical Union.

In recognition of the profound seismological contributions of Brian Kennett, it is with great pleasure that he is awarded the 2019 IASPEI Medal.

Takashi Furumura, Kazuki Koketsu and the IASPEI Bureau

Obituary

Enzo Boschi (1942 – 2018)

Enzo Boschi passed away on December 22, 2018, at the age of 76 years.

Born in Arezzo, Tuscany, he graduated in Physics at the University of Bologna in 1968. His first scientific interests were the physics of the Earth's interior, the earthquake source

and those mechanisms from which volcano eruption originates. At the beginning of his scientific career he was visiting scholar at the Laboratoire des Hautes Pressions (CNRS, Paris), at the Cavendish Laboratory (Cambridge University) and at the Department of Earth and Planetary Sciences (Harvard University).

In 1973 he became professor of Geophysics at the new-born University of Ancona and later full professor at the University of Bologna where from 1977 to 2012 he was Chair of Seismology.

After participating in the “Progetto Finalizzato Geodinamica” by the Consiglio Nazionale delle Ricerche (CNR) and in the first edition of the “Gruppo Nazionale per la Difesa dai Terremoti”, in 1983 he was appointed as President of the Istituto Nazionale di Geofisica (ING). He remained in charge till 2001 when ING merged with Osservatorio Vesuviano and three institutes from CNR into the new Istituto Nazionale di Geofisica e Vulcanologia (INGV). He was President of INGV since its birth up to year 2011.

During his almost 30-year long presidency, Enzo Boschi had an active role in the creation of the Protezione Civile Italiana (National Civil Protection) and, from 1986 to 2000, he chaired the Seismic Risk Section of the Commissione Grandi Rischi (Great Risks Commission). Later he continued to be member of the Commission as INGV president. Meanwhile, and with the support of the National Civil Protection itself, the modern Italian Seismic Survey was created by moving from few sparse vertical seismographs to a dense network of more than 400 digital seismometers covering the entire country, plus a state-of-the-art network of very broadband seismometers at Mediterranean scale (MedNet Network). Later, INGV extended its research topic to Physical Oceanography and climate changes. The institute during the years had also a leading role in many research projects and international collaborations with the support of United Nations, UNESCO, NSF, NATO, European Commission and others.

However, among several successful actions, his masterpiece was to get a small institute made of few researchers, technicians and scientific instruments to grow up and become one of the top institutions in the world for geophysics and volcanology with highest number of publications and citations.

Since 1984 Enzo Boschi was Director of the International School of Geophysics at the Ettore Majorana Cultural Centre in Erice, Sicily. Here, Boschi gathered together students, young researchers and professors of the highest repute. The informal but rigorous setting of the School contributed to create those connections and collaborations that brought a large number of Italian geophysicists abroad to learn and grow by visiting top level universities and research centres worldwide. In this framework, his support to the ideas and ambitions of “his researchers” was often wholehearted.

As INGV President, on March 30, 2009, Enzo Boschi was invited to attend an expert meeting in L’Aquila organised by the National Civil Protection and dedicated to the ongoing sequence of earthquakes that was interesting the region since few months. Few days later, the Mw 6.3 “L’Aquila earthquake” struck, resulting in the death of about 300 people. Boschi and six other meeting attendants were indicted for manslaughter under the motivation of having put in place an inaccurate appraisal of the seismic risk and having reassured the population about the low probability of a destructive earthquake. At first instance, he was sentenced to six years imprisonment and the refunding of the victims’ relatives. Two years later, the decision was overtaken by the second instance sentence where Enzo Boschi and other five were fully acquitted because the case was unfounded. Acquittal was later confirmed by the Supreme Court.

During his long career, Enzo Boschi has received several scientific and civil awards and honours. Member of the Accademia dei Lincei and of the Accademia Europe, AGU and AAAS fellow, in December 2006 he was called Cavaliere di Gran Croce, Ordine al merito della Repubblica Italiana by president Giorgio Napolitano.

Enzo Boschi was also very popular among the tv and media public since he was always interviewed in the aftermath of seismic or volcanic events. By combining his passion and rigorousness for the scientific research with a full commitment toward the society, he never missed the opportunity, while interviewed, to remark that safe buildings are the only way to prevent earthquake casualties. A lesson that Italy is far from learning, yet. In the last years, he gained a good visibility on Twitter where he was active and willing to discuss with colleagues, researchers, journalists and citizens. Even by short sentences, he was able to conjugate joviality, bitterness and rigour. He was always able to listen and relaunch the discussion.

He was a person with strong personality, abundant political courage, farsightedness, and charisma. Everything spiced up with a Tuscan character. His inner strength was crucial to overcome the complex steps of his career and of his life.

Seismology, volcanology and several researchers owe him. Certainly, we who are dedicating to him this memory. It was a great honour to have him as Presidente.

Marco Olivieri (marco.olivieri@ingv.it) &
Massimiliano Stucchi

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.

2019

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

Seismological Society of America (SSA)
April 23 – 26, 2019 Seattle, Washington, USA
URL: https://www.seismosoc.org/meetings/

Science and Technology (SnT) 2019
June 24 – 28, 2019, Vienna, Austria
URL: https://www.ctbto.org/SnT2019/

27th IUGG General Assembly
July 8 – 18, 2019, Montréal, Canada
URL: http://iugg2019Montréal.com/

AOGS2019 16th Annual Meeting
July 28 – August 2, 2019, Singapore
URL:
http://www.asiaoceania.org/aogs2019/public.asp?page=home.htm

AGU Fall Meeting
December 9 – 13, 2019, San Francisco, USA
URL: https://fallmeeting.agu.org/2019/

2020

Seismological Society of America (SSA)
April 27 – 30, 2020, Albuquerque, New Mexico, USA
URL: https://www.seismosoc.org/meetings/

EGU General Assembly 2020
May 3 – 8, 2020, Vienna, Austria

AOGS2020 17th Annual Meeting
June 28 – July 4, 2020, South Korea

LACSC 4th General Assembly
August 3 – 5, 2020, Quito, Ecuador

ESC 37th General Assembly
September 6 – 11, 2020, Corfu, Greece

AGU Fall Meeting
December 7 – 11, 2020, San Francisco, USA

2021

AOGS2021 18th Annual Meeting
August 1 – 6, 2021, Singapore

2nd Joint IAGA-IASPEI Scientific Assembly
August 22 – 27, 2021 Hyderabad, India

2022

3rd European Conference on Earthquake Engineering and Seismology
2022, Bucharest, Rumania

General Information about IASPEI

The **I**nternational **A**ssociation of **S**eismology and **P**hysics of the **E**arth's **I**nterior [IASPEI] is one of the eight Associations of the **I**nternational **U**nion of **G**eodesy and **G**eophysics [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-the-minute 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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