



**INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS  
UNION GEODESIQUE ET GEOPHYSIQUE INTERNATIONALE**

## **The IUGG Electronic Journal**

**Volume 23 No. 3 (1 March 2023)**

This monthly newsletter is intended to keep IUGG Members and individual scientists informed about the activities of the Union, its Associations and interdisciplinary bodies, and the actions of the IUGG Secretariat, Bureau, and Executive Committee. Past issues are posted [here](#). E-Journals may be forwarded to those who will benefit from the information. Your comments are welcome.

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### **1. IUGG – The People at the Forefront (XXXI)**

#### **Alik Ismail-Zadeh, Chair of the Union Commission on Mathematical Geophysics (CMG), 2019-2023**

I was born in Baku, the capital of Azerbaijan, then part of the Soviet Union, in the family of a geophysicist (my father) and a physician (my mother). At the age of six, I entered a music school to study piano and graduated cum laude in 1976. I remember my graduation piano concert where I played Bach, Mozart and Chopin, and everyone was happy ... except me, because I decided to become a mathematician, and not a pianist. I passed a mathematics exam, entered the Mathematical High School, and graduated in 1978 with the Gold Medal for excellence in high school education (my first award). In the same year, I started mathematical studies in the Baku State University from which I graduated magna cum laude. My bachelor's thesis was on a new



*Alik Ismail-Zadeh at the World Science Forum 2019 in Budapest (photo: courtesy of the Hungarian Academy of Sciences)*

numerical method for solving a special system of ordinary differential equations. I spent a year at the Lomonosov Moscow State University working on my master's thesis "Diffraction of inner waves in the ocean", and was a lucky student because Andrey Tikhonov, a mathematician and inventor of regularisation techniques for solving inverse problems in geophysics, agreed to supervise my work on this thesis. In 1987, I became a doctoral student at the Institute of Physics of the Earth of the USSR Academy of Sciences in Moscow under the guidance of Vladimir Keilis-Borok (IUGG President, 1987-1991). In 1990, I obtained my PhD in Geophysics with a thesis "Gravitational stability of viscoelastic lithosphere" and moved to the Institute of Earthquake Prediction Theory and Mathematical Geophysics in Moscow. Later, my research interests shifted towards understanding the evolution of sedimentary basins. A monograph "Numerical Modelling of Sedimentary Basin Evolution" became the basis for my Habilitation (Doctor of Science) in Geophysics in 1997.

Gorbachev's perestroika removed the iron curtain and opened the doors of the world's scientific schools to Soviet scientists. I moved to several academic institutions to learn more about challenging scientific problems and to collaborate with foreign colleagues on various projects. I worked at ICTP (Italy), IPGP (France), KTH (Sweden), UCLA (California, USA), U. Cambridge (UK), U. Tokyo (Japan), U. Trieste (Italy), and U. Uppsala (Sweden), and was short-term visitor at several other universities. Joint scientific research with scientists from Asia, Europe, and America helped me to appreciate the importance of international scientific collaboration. Since 2001, I work at the Karlsruhe Institute of Technology in Germany.

My [scientific interests](#) moved between research topics as I identified research gaps: salt tectonics and sedimentary basins, mantle convection, thermal plumes, lithospheric dynamics, seismicity, and most recently lava dynamics. The methods I used in my research were basically theoretical, mathematical, and computational. The textbook "Computational Methods for Geodynamics" (written in 2010 together with Paul Tackley and published by the Cambridge University Press) was an attempt to highlight the importance of mathematical and numerical tools in solving geodynamical problems. During the past decades, I have also been working on seismic hazard and risk assessments, disaster-related science, and the history of the IUGG and international scientific cooperation. More about my science can be found in a list of my [publications](#).

My first contact with IUGG was during its General Assembly (GA) in Vienna in 1991, where I attended the IASPEI Symposium. Since then, I have participated in all the IUGG GAs. The most remarkable events that influenced my professional life took place during the GA in Birmingham (1999) and in Perugia (2007). In Birmingham I met Tom Beer, later IUGG President (2007-2011), who invited me to join his efforts in organising a Union Commission on Geophysical Risk and Sustainability (GRC). In 2007, I was elected IUGG Secretary General at the GA in Perugia and served IUGG in this position for twelve years. Over the years, I met great minds from many parts of the world, and we developed a collegial relationship to promote geophysics, geodesy and other geosciences. Since 2019, I chair the Union Commission on Mathematical Geophysics (CMG), and represent the Union at the UNESCO Earth Sciences and Geoparks Section. Last year, I was nominated for the position of IUGG President-Elect, which I consider to be a great honour and big responsibility. If elected, together with the President of the Union, I would do my best to promote basic and interdisciplinary research for sustainability and to adapt the Union to the new challenges we are facing.

In 2018, I was elected as inaugural Secretary of the International Science Council (ISC), the largest international non-governmental organisation that unites scientific bodies across the social and natural sciences. IUGG is an ISC Member. Also, I have been promoting scientific activities of several professional scientific organisations such as AGU, EGU, Euroscience, and ISC GeoUnions as well as intergovernmental organisations such as CTBTO, European Commission, GEO, UNDRR, and

UNESCO. The main activities are related to basic science and [science diplomacy](#). I have been honoured for my research and science promotion by various [awards](#).

One of the greatest paradoxes of our time is the declining interest in basic science, even as societies become increasingly dependent on scientific and technological progress and innovation. This was a reason why the International Union of Pure and Applied Physics proposed the International Year of Basic Sciences for Sustainable Development (IYBSSD). Supported by governmental and international non-governmental organisations including IUGG, the United Nations General Assembly proclaimed 2022 to be IYBSSD. I would like to call upon early- and mid-career scientists to make greater efforts to help the Union promote the basic geophysical sciences and geodesy for sustainable development. Your research, knowledge gained, scientific evidence, and international research collaboration would contribute to informed decision-making at all levels.

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## **2. IUGG – Bureau and Finance Committee (2023-2027): Candidates and Call for Further Nominations**

On 11 November 2022, the IUGG Nominating Committee announced the names of candidates for election as IUGG Bureau and Finance Committee Member (2023-2027). The election will take place at the [IUGG General Assembly 2023](#) in Berlin, Germany:

**President-Elect**                      Alik ISMAIL-ZADEH (Germany, IASPEI)  
Mioara MANDEA (France, IAGA)

**Secretary General**                vacant

**Treasurer**                            Niels ANDERSEN (Denmark, IAG)

### **Bureau Members** **Positions #1, #2, and #3**

Eduard PETROVSKY (Czech Republic, IAGA)  
Corina RISSO (Argentina, IAVCEI)  
Virendra TIWARI (India, IAG)  
Yi-Gang XU (China, IAVCEI)

### **Finance Committee Members**

*Position #1:*                            Priscilla GREW (USA, IAVCEI)  
*Positions #2 and #3:*                vacant

The officers of the Union and Associations, and the National Adhering Bodies for IUGG may make further nominations and/or recommendations to the Nominating Committee by **11 April 2023**. Any new nominations for a given position, supported by at least three Presidents or equivalent officers of National Committees of Member Countries, and accompanied by the written acceptance of candidates and a resumé outlining their position, research interests and Union related activities, shall be added to the list above.

As there are two vacant positions for the Finance Committee, **it is a matter of urgency to nominate candidates for the two positions** *from among the current or past accredited Council Delegates*. The full list of Council Delegates who have served since 2002 is available [here](#). Please note that this list also includes a few colleagues who already passed away. No member of the Finance Committee may

at the same time be a member of the Bureau or the executive body of the Union or of an Association or of a governing body of one of the Permanent Services or programs supported by the Union.

If you have any question concerning the nomination procedure, please contact the [IUGG Secretariat](#).

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### 3. IUGG – Gold Medalist 2023

The IUGG Gold Medal is bestowed on [Valerie Masson-Delmotte](#) (Laboratoire des sciences du climat et de l'environnement – LSCE, France) for *”her leading role in deep ice core climate-record projects, unravelling isotope deposition on polar snow, and for her outstanding contributions to increasing society’s awareness of climate change“*.

The Gold Medal will be presented to Valerie at the Opening Ceremony of the [IUGG General Assembly 2023](#) on 13 July 2023 in Berlin, Germany. The Gold Medal Lecture will be given on Saturday, 15 July 2023 (date to be confirmed).

**Congratulations!**



*Valerie Masson-Delmotte*

### International Jury

The [Gold Medal Committee \(2023\)](#) was chaired by Tom Beer (Australia; IAMAS). The Members of the Committee were Zuheir Altamimi (France; IAG), Günter Blöschl (Austria; IAHS), Kumiko Goto-Azuma (Japan; IACS), Emma Hill (Singapore; IASPEI), Catherine Johnson (Canada; IAGA), Jan Marie Lindsay (New Zealand; IAVCEI), Hans van Haren (Netherlands; IAPSO), and Alexander Rudloff (Germany; IUGG).

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#### 4. IUGG – General Assembly 2023: Updates

##### *Accommodation*

Selected hotels at negotiated rates are now available [here](#). Rooms are available from 10 to 20 July 2023. All other dates are upon request and subject to room availability.

##### *Code of Conduct Policy*

IUGG opposes any discrimination or harassment based on such factors as age, citizenship, disability, ethnic origin, gender identity, language, political or other opinion, religion, or sexual orientation. The [IUGG General Assembly 2023](#) will follow the Anti-Harassment Guidelines to prevent any form of harassment or discrimination, and to ensure an inclusive atmosphere that encourages the free expression and exchange of scientific ideas and results. The code of conduct policy is available [here](#).

##### *Getting there*

No matter if you travel to Berlin by train, plane, or car, please find all relevant information about how to reach the convention center [here](#).

##### *Registration*

Are you planning to attend the [IUGG General Assembly 2023](#) only for a short time? It is now possible to [register](#) also for a single day and four days only. The Early-bird registration will be available until **28 April 2023**.

##### *Splinter Meetings*

Are you interested in organising a Business Meeting, Side Event, or Reception during the [IUGG General Assembly 2023](#)? Please register your meeting [here](#).

##### *Volunteer Opportunities*

Are you a student and wish to get free access to the [IUGG General Assembly 2023](#)? Become a volunteer and express your interest [here](#)!

For more information, please visit the [IUGG2023 website](#) or contact the [IUGG2023 Secretariat](#).



#### 5. IAPSO – The 2023 Prince Albert I Medal: Call for Nominations



On behalf of the 2023 Prince Albert I Medal Award Committee, I would like to kindly invite you to send us your nominations for the recipient of the Prince Albert I Medal for the year 2023.

*The Prince Albert I Medal is awarded to a scientist who has made outstanding contributions to the enhancement and advancement of the physical and/or chemical sciences of the oceans.*

Nominations must be submitted by [e-mail](#). The deadline for nominations is **31 March 2023**. Late submissions will not be considered.

More information about the medal, the nomination procedures, and previous medal winners can be found [here](#).

Stefania Sparnocchia, IAPSO Secretary General

## 6. ISC –Nominate experts to UNEP-ISC Foresight Expert Panel

The United Nations Environment Programme (UNEP) and the ISC are partnering on an initiative to publish a Global Report in 2024 to inform the deliberations of the sixth UN Environment Assembly (UNEA-6). UNEP and the ISC are seeking experts to be part of an independent Expert Panel who will provide insights and recommendations to the report to guide this critical work on environmental horizon scanning and strategic foresight. Experts may be affiliated with your organisation, or come from outside of your networks, however, they must be nominated by a representative of an ISC Member organisation. More information on the role of the Expert Panel, timeline, selection criteria and the online nomination form are available [here](#). The deadline for nominations is **3 March 2023**.



**International  
Science Council**



In addition to this call for nominations, the ISC is also seeking virtual secondments of experts in foresight methods, tools and practice from ISC Members. Experts will be part of the joint project team across the Office of the UNEP Chief Scientist and the ISC Secretariat that will support the delivery of the process and related report. The seconded experts will be expected to work as part of the ISC project team remotely. More information is available [here](#). The deadline for applications is **20 March 2023**.

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## 7. Awards and Honours

### *International Association of Hydrological Sciences (IAHS)*

*Afua Owusu* (Ghana) was awarded the first [IAHS Falkenmark Award](#) for best PhD thesis.

***Congratulations!***

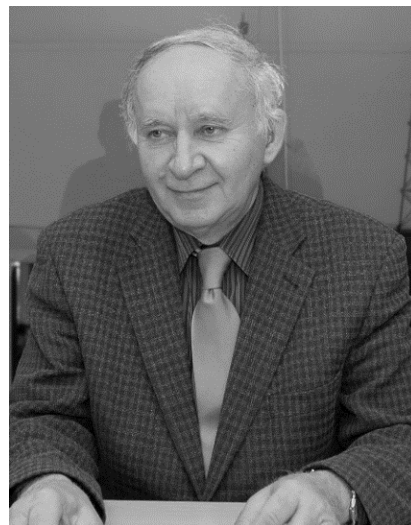
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## 8. Obituary

### *József Ádám (1950-2022)*

We are deeply saddened to inform the international scientific community that Prof. József Ádám, member of the Hungarian Academy of Sciences, president of the IAG National Committee and IAG National Representative, and the former President of the COB/Member of the EC passed away on December 29, 2022. Both the Hungarian and the international geodetic and geophysics community has lost a remarkable scientist, an outstanding professor and a good friend.

József Ádám was born in 1950 in Kocsér, a small village in Central Hungary. He was enchanted as a child by the work and the instruments of land surveyors, who were taking observations on the 3rd order geodetic control point in his home village. In the 1960s his teenage years coincided with the evolution of the space era. He read articles about artificial satellites, and these also determined his future activities. He studied land surveying at the Technical



*József Ádám*

University of Budapest (now Budapest University of Technology and Economics, BME) and earned his PhD in 1977 with the thesis "Determination of station coordinates using satellite laser ranging".

He commenced his professional career in 1974 at the Satellite Geodetic Observatory of the Institute of Geodesy, Cartography and Remote Sensing in Hungary. He started to work on the application of the emerging satellite geodetic observation techniques in the development and refinement of geodetic networks. The datum transformation parameters between the Hungarian Datum 1972 and WGS-72 as well as WGS-84 were determined by him using Doppler and GPS observations, respectively. Later he joined the research group studying VLBI and space-VLBI techniques. He held an Alexander von Humboldt Fellowship in Stuttgart in 1985 and a research associate position in the late 1980s at the Ohio State University, where he did fundamental research on the geodetic applications of space VLBI observations and wrote his well-known work "Estimability of geodetic parameters from space VLBI observables". In 1995 he held a research associate position at The Observatoire de Paris as well.

He was continuously active in teaching as the lecturer in Geodetic Control Networks and Satellite Geodesy at BME. In 1992 he earned his DSc in Geodesy at the Hungarian Academy of Sciences and was appointed as professor of the Department of Geodesy at BME. He taught several generations of land surveyors and geodesists in the next more than 30 years.

His research activities focused on the application of satellite geodetic techniques in the establishment and maintenance of geodetic control networks, on geoid determination as well as on the development of continental and international reference frames. The Hungarian Academy of Sciences appointed him as a corresponding member in 1998 and as a regular member in 2004. He was a very enthusiastic member of the HAS, served as vice president and later president of the Department of Earth Sciences each for 6 years. As a member of the HAS he turned his interest to the history of earth sciences and technology as well as to the conservation and further development of the Hungarian technical and scientific language.

He was also active in the international geodetic community. He served as the Hungarian National Representative of the IAG since 1991, as the chairman of the IAG Special Study Group 2.109 (Application of Space VLBI in the Field of Astrometry and Geodynamics) and as the president of its Communication and Outreach Branch between 2003-2019. He organised several IAG conferences in Budapest, such as the 3rd EUREF Symposium in 1993; the 2nd Continental Workshop on the Geoid in Europe in 1998; the IAG Scientific Assembly in 2001, and the IAG International Geoid School at 2005. He was the convenor and/or co-convenor of IUGG union and Inter-Association Symposia in 2011, 2015 as well as in 2019, as well as a Fellow of the IAG since 1995.

He also made notable contributions to the IUGG. He was President of the IUGG National Committee of Hungary (1999-2022), IUGG Council Delegate of Hungary (1999-2022), member of the IUGG Finance Committee (2019-2022), and member of the IUGG Working Group on History (2014-2019).

Due to his long-term commitment to advancing geodetic research as well as to the promotion of international geodetic cooperation, the Bayerische Akademie der Wissenschaften elected him a corresponding member of the German Geodetic Commission in 2001. He became a member of the Leibniz Society of Sciences at Berlin in 2021. He was devoted to the science of geodesy and to serving the geodetic community both on the international and on the national level. He was an appreciated member of the geodetic community due to his knowledge, his deliberate and patient personality and positive, supporting attitude. May he rest in peace!

Szabolcs Rózsa, President of the IAG Communication and Outreach Branch

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## 9. Important IUGG Deadlines

- 31 March 2023:** [Submit Draft Resolutions for the 28th IUGG General Assembly in 2023.](#)  
**11 April 2023:** [Nominate IUGG Bureau and Finance Committee Members \(2023-2027\)](#)  
**28 April 2023:** [Register as early bird for IUGG2023.](#)
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## 10. Meeting Calendar

This calendar includes meetings which are planned to be organised in the next three months under the umbrella of IUGG, and major conferences of IUGG's partner organisations. The calendar is updated regularly and is also available [online](#). If you would like to add a meeting, or report changes, please contact the [IUGG Secretariat](#).

### *March*

- 13-17, IPCC, Interlaken, Switzerland, [58th session of the IPCC](#)
- 22-24, UN, New York City NY, USA, [UN 2023 Water Conference](#)
- 28-30, IAG, Online, [2nd ICCG Workshop on Geodesy for Climate Research](#)
- IAG, IUGG, Espoo, Finland, Workshop in Geodesy and SAR

### *April*

- 4-6, AGU, Atlanta GA, USA, [Ocean Visions Biennial Summit 2023](#)
- 16-21, COSPAR, Singapore, [5th COSPAR Symposium: Space Science with Small Satellites](#)
- 22-23, IUGG-China, Wuhan, China, 5th Congress of China Geodesy and Geophysics
- 23-28, EGU, Vienna, Austria, [EGU General Assembly 2023](#)

### *May*

- 12-16, IAGA, IAPS, Milan, Italy, [PLANCKS 2023](#)
  - 15-19, AGU, Agros, Cyprus, [Chapman on Hydrothermal Circulation and Seawater Chemistry](#)
  - 21-26, JPGU, Chiba, Japan, [Japan Geoscience Union Meeting 2023](#)
  - 22-25, AGU, Washington DC, USA, [Chapman on Climate and Health in Africa](#)
  - 22-26, IAG, Gothenburg, Sweden, [EUREF Symposium 2023](#)
  - 22-26, IAGA, Sopron, Hungary, 19th IAGA workshop on geomagnetic observatories, data acquisition and processing
  - 22-2 June, WMO, Geneva, Switzerland, [19th World Meteorological Congress](#)
  - 28-2 June, AGU, Berlin, Germany, [Chapman on Advances in Understanding Alfvén Waves in the Sun and the Heliosphere](#)
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