



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

## **The IUGG Electronic Journal**

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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 on the IUGG [website](#). 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 (VII)**

#### **Jun Xia, Bureau Member 2019-2023**

I was born in Hubei, China, graduated from Wuhan University with a PhD degree majoring in Hydrology & Water Resources in 1985, and have held a Professorship at the university since 1991. I was amongst the first to obtain a doctorate degree in hydrology in China. My initial involvement with both IAHS and IUGG was during August, 1987 in Vancouver, Canada, when I attended the XIX IUGG General Assembly, to give a technical presentation. That essentially started my academic career in international cooperation on major water programs and issues, as well as collaborative activities with international water resources associations to promote the bridge-building and joint efforts for water management and sustainable socio-economic development.

Why did I select hydrology & water issues as my lifelong direction of academic exploration? One of the major reasons could be an early but very special academic experience when I was a university student in Wuhan undertaking a fieldwork assignment related to water engineering. In 1973, I visited the Banqiao Reservoir on the Huai River for three months. Almost every day during this time, I crossed the Banqiao dam top. Then unfortunately, just two years later, this region suffered an extraordinary rainstorm with intensity of 1060.3mm/day that resulted in the well-known Henan “75.8” dam-breaking flood. Official reports documented 26,000 victims and severe economic and property losses for this devastating event in China. In 1976, as I taught at Wuhan University and started my academic research career, I asked myself why did this catastrophic event happen? How can we mitigate such huge disaster risks for human beings? I knew then that Hydrology would play a key role in providing the basic knowledge and understanding of the mechanism of runoff generation, its routing and so on. This has since led me to taking several academic positions over more than 20

years to try to lead teams to undertake research and international cooperation on developing system hydrology and practices. Those roles have included being the Chair Professor & Director of the Key Laboratory of Water Cycle in the Chinese Academy of Sciences (CAS) since 2000, Director of the State Key Laboratory of Water Resources & Hydropower Engineering in China (2002-2006), and now an Academician of the Chinese Academy of Sciences since 2015, as well as the Chair, Professor & Director, Research Institute for Water Security, Wuhan University.



*Jun Xia leaving the Key Laboratory of Water Cycle & Related Land Surface Processes at the Chinese Academy of Sciences after working on hydrologic simulation experiments*

My research interests and scientific expertise have always been focused on the hydrological science fundamentals for sustainable water utilisation. An example is the development of a nonlinear time-variant systems approach to analysing rainfall-runoff processes. Another example is the international cooperation for sustainable water management as an engine for social and economic sustainable growth. Specifically, I have focused much attention on clarifying the time-variant runoff generation mechanism, and developed new tools, such as the Time-Variant Gain Model (TVGM) and water system approach, to quantifying the general relationship for runoff generation, and promoting a new paradigm of a hydrologic systems approach for large basins to deal with the contradictions and conflicts encountered in water project operation for flood control versus water environment protection, as well as eco-water operation in river systems in developing countries. I have been honoured to receive recognition such as the International Hydrology Prize-Volker Medal jointly awarded by IAHS, UNESCO and WMO in 2014, and also a 2019 IUGG Fellowship.

Since 1989, I have been elected to several international water leadership positions, including at IAHS, IWRA, WWC and IUGG, with the role of promoting major professional water institutions and water-related activities through international water programs. Through these roles I also was committed to strengthening cooperation and academic exchange on water issues, particular for developing countries. For instance, I was elected as Vice President, International Commission for Water Resources System, IAHS (1996-1999), Vice President of IAHS (2004-2007), President of the International Water Resources Association (2010-2012), Governor for World Water Council (WCC, 2010-2015), Honorary Vice-President of IAHS (2015-2019), and IUGG Bureau member for 2019-2023. My goal is to promote cooperation and knowledge or experience transfer, particularly for developing countries, such as organising several international forums on water security and Earth science. Such activities included events such as the XIV World Water Congress in Brazil, 2011, and the IUGG Centennial Celebration Activities in China, through a high-level International Earth Sciences Summit, on 21-24 August, 2018, as well as international publications on various topics, such as global water security for which I was one of the lead authors of the Book, entitled *Water and the Future of Humanity: Revisiting Water Security*, published by Springer in 2013.



*Jun Xia visiting the Tibet Plateau to survey the hydrological impacts of debris flow in 2017*

As one of the Bureau members of IUGG for 2019-2023, I am aware of new opportunities and challenges for IUGG development in coming years because the world is facing bigger challenges than ever before on many earth-water related issues, such as global climate change, water security, natural disasters, and social-economic sustainable development. Development of Earth sciences should adopt a systems approach involving multiple disciplines and in an interdisciplinary way. Many important processes and mechanisms in Earth systems are not completely clear. The IUGG will play an ever more important role in understanding global climate

change and Earth system behaviours. Under the leadership of the new IUGG Bureau for the coming four years, I will do my best to serve the IUGG, particularly with respect to the Asia region issues to promote knowledge sharing and merging under the IUGG framework and linked with more International associations and across commissions. This will be particularly essential for the acceleration of sustainable development linked with SDGs from the developing countries in the world.

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## 2. CNC-IAMAS (2011-2018) Report

On occasion of the IUGG Centennial, the Chinese National Committee (CNC) for the International Association of Meteorology and Atmospheric Sciences (IAMAS) invited some senior scientists from China to review advances and achievements in meteorology and atmospheric sciences in China, for the period 2011–2018, to publish this [“Special Issue on the National Report to the IUGG Centennial by CNC-IAMAS \(2011–2018\)”](#) which is now available online.



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## 3. ISC COVID-19 Global Science Portal

The [COVID-19 Global Science Portal](#) of the International Science Council (ISC) provides an overview of response to the COVID-19 pandemic by the ISC community. It shares scientific commentary and analysis and provides access to information on various initiatives, highlighting the scale and scope of response and encouraging ISC members and partners to collaborate and share best practices during this global emergency.

#### 4. Science Advice and COVID-19

In response to the COVID-19 outbreak, the International Network for Government Science Advice (INGSA) has created the information hub [Science Advice and COVID-19](#) to aggregate and share the resources and discussions relating to how science advice and evidence functions in emergencies. INGSA is looking for experts and practitioners to write commentary and analysis, share resources and opportunities, and provide input into its national policy-making tracker. For more information visit the [CONTRIBUTE page](#).

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#### 5. Meetings affected by COVID-19

##### *AGU/JpGU*

The [JpGU – AGU Joint Meeting 2020. For a Borderless World of Geoscience](#) planned to be held in Chiba, Japan, from 23 to 28 May 2020, has been postponed to 12 to 16 July 2020 to be held online.

##### *EMSEV*

The [EMSEV2020 - Electro-Magnetic Studies of Earthquakes and Volcanoes](#) planned to be held in Taoyuan, Rep. of China, from 24 to 28 August 2020, has been postponed to 22 to 26 August 2022 to be held at the same place.

##### *IACS*

The IACS sponsored [International Summer School in Glaciology](#) planned to be held in McCarthy AK, USA, from 6 to 16 June 2020, has been cancelled. It is planned to organise the summer school in the summer of 2021.

##### *IAG*

The IAG sponsored [EUREF 2020 Symposium](#) planned to be held in Ljubljana, Slovenia, from 27 to 29 May 2020, has been postponed to 26 to 28 May 2021 to be held at the same place.

The IAG/GGOS sponsored [GTEWS 2020 Workshop](#) planned to be held in Sendai, Japan, from 1 to 5 June 2020, has been postponed to spring 2021.

The IAG sponsored [2nd International Symposium of Commission 4: Positioning and Applications](#) planned to be held in Potsdam, Germany, from 7 to 11 September 2020, has been postponed to 5 to 9 September 2022 to be held at the same place.

##### *IAGA*

The IAGA sponsored [VIII SBGEA & VIII SimFAST Joint Symposium](#) planned to be held in Sao Jose dos Campos, Brazil, from 25 to 29 May 2020, has been postponed. A new date will be announced later this year.

The IAGA sponsored [8th HEPPA-SOLARIS](#) planned to be held in Bergen, Norway, from 8 to 10 June 2020, has been postponed to June 2021 to be held at the same place.

The IAGA sponsored [8th IAGA/ICMA/SCOSTEP Workshop on Vertical Coupling in the Atmosphere-Ionosphere System](#) planned to be held in Sopron, Hungary, from 6 to 10 July 2020 has been cancelled.

The IAGA sponsored [19th IAGA Workshop on Geomagnetic Observatory Instruments, Data Acquisition and Processing](#) planned to be held in Kazan, Russia, from 6 to 12 July 2020 has been postponed to October 2020 to be held at the same place.

The IAGA sponsored [25th International Electromagnetic Induction Workshop](#) planned to be held in Kusadasi, Turkey, from 13 to 19 September 2020 has been postponed to 2022.



## **IAHS**

The IAHS sponsored [IAHS/ICCE International Symposium River sediment quality and quantity: environmental, geochemical and ecological perspectives](#) planned to be held in Bydgoszcz, Poland, from 1 to 5 June 2020 has been postponed to 26 to 30 October 2020 to be held at the same place.

The IAHS sponsored [9th International Water Resources Management Conference of ICWRS](#) planned to be held in Cairns, Australia, from 20 to 22 July 2020 has been cancelled.

The IAHS sponsored [International Conference on the Status and Future of the World's Large Rivers](#) planned to be held in Moscow, Russia, from 3 to 7 August 2020 has been postponed to 2 to 6 August 2021 to be held at the same place.

## **IAMAS**

The IAMAS sponsored [Quadrennial International Radiation Symposium](#) planned to be held in Thessaloniki, Greece, from 6 to 10 July 2020 has been postponed to 14 to 18 June 2021 to be held at the same place.

The IAMAS sponsored [International Conference on Clouds and Precipitation](#) planned to be held in Pune, India, from 3 to 7 August 2020 has been postponed to 2021.

The [International Global Atmospheric Chemistry Conference](#) planned to be held in Manchester, UK, from 14 to 18 September 2020 has been postponed to 12 to 16 September 2021 to be held at the same place.

The IAMAS sponsored [International Ozone Commission Quadrennial Ozone Symposium QOS2020](#) planned to be held in Seoul, Rep. of Korea, from 4 to 10 October 2020 has been postponed to 3 to 9 October 2021 to be held at the same location.

## **IASPEI**

The IASPEI sponsored [13rd General Assembly of the Asian Seismological Commission \(ASC\)](#) planned to be held in Sharm El-sheikh, Egypt, from 1 to 3 June 2020 has been postponed to 2021.

The IASPEI sponsored [19th International Workshop on Seismic Anisotropy & 2nd Workshop on Active and Passive Seismics in Laterally Inhomogeneous Media](#) planned to be held at Želiv Premonstratensian Monastery, Czech Republic, from 15 to 20 June 2020 has been postponed to 7 to 12 June 2021 to be held at the same place.

The IASPEI sponsored [3rd General Assembly of the African Seismological Commission \(AfSC 2020\)](#) planned to be held in Kasane, Botswana, from 28 June to 4 July 2020 has been postponed to 2 to 8 December 2020 to be held at the same place.

The IASPEI sponsored [4th Scientific Assembly of the Latin American and Caribbean Seismological Commission \(LACSC\)](#) planned to be held in Quito, Ecuador, from 3 to 5 August 2020 has been postponed to 2021 to be held at the same place.

The IASPEI sponsored [37th General Assembly of the European Seismological Commission \(ESC\)](#) planned to be held in Corfu, Greece, from 6 to 11 September 2020 has been postponed to September 2021 to be held at the same place.

## **IAVCEI**

The IAVCEI partnered [2020 Goldschmidt Conference](#) planned to be held in Honolulu HI, USA, from 21 to 26 June 2020 will be held online at the same dates.

The IAVCEI sponsored [11<sup>th</sup> Cities on Volcanoes Conference](#) planned to be held in Heraklion, Crete, from 23 to 27 May 2020 has tentatively been postponed to 25 to 30 September 2020 at the same place.

The IAVCEI sponsored [Soufrière Hills Volcano 25 Years Conference](#) planned to be held in Montserrat, West Indies, from 20 to 24 July 2020 will be postponed.

The IAVCEI sponsored [14<sup>th</sup> CCVG Field Workshop on Volcanic Gases](#) planned to be held in Hokkaido, Japan, has been postponed to 5 to 12 June 2021 to be held at the same place.

A decision will be soon communicated as regards the [IAVCEI Scientific Assembly](#) planned to be held from 15 to 19 February 2021 in Rotorua, New Zealand.

### **IGU**

The [34th International Geographical Congress](#) planned to be held in Istanbul, Turkey, from 17 to 21 August 2020, has been postponed to 16 to 20 August 2021 to be held at the same place.

### **ISPRS**

The [24th ISPRS Congress](#) planned to be held in Nice, France, from 6 to 10 July 2020, has been postponed to 4 to 10 July 2021 to be held at the same place.

### **SEDI**

The [SEDI2020 – 17<sup>th</sup> Symposium of the Study of the Earth's Deep Interior](#) planned to be held in Taipei, Rep. of China from 6 to 10 July 2020 has been cancelled.

### **URSI**

The [23rd URSI General Assembly and Scientific Symposium](#) planned to be held in Rome, Italy, from 29 August to 5 September 2020, has been postponed to August/September 2021 to be held at the same place.

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## **6. Meeting calendar**

**Meetings are subject to change due to COVID-19 pandemic.**

2020

### **May**

- 4-8, EGU, Online, [EGU General Assembly 2020](#)

### **June**

- 10-28, ICTP, Trieste, Italy, [Joint Summer School on Modelling Tools for Sustainable Development](#)
- 21-26, IAVCEI, Online, [2020 Goldschmidt Conference](#)

### **July**

- 6-10, IAHS, Vienna, Austria, [Summer School - Runoff Predictions in Ungauged Basins \(PUB\)](#)
- 12-16, AGU, JpGU, Online, [JpGU – AGU Joint Meeting 2020. For a Borderless World of Geoscience](#)
- 12-17, IAHS, Perugia, Italy, [2020 International Summer School on Hydrology](#)
- 12-17, SCOR, Bad Honnef, Germany, [Summer School on "Physics of the Ocean"](#)
- 13-17, IAHS, Wallingford, UK, [Hydro-JULES Summer School 2020](#)

### **August**

- 3-8, ICTP, IUGG, Legon, Ghana, [The Coastal Ocean Environment Summer School in Ghana 2020](#)
- 3-14, ICTP, IUGG, Trieste, Italy, [3rd Summer School on Theory, Mechanisms and Hierarchical Modeling of Climate Dynamics: Tropical Oceans, ENSO, and their teleconnections](#)
- 10-14, IAG, Boulder CO, USA, [IGS Workshop IGS 2020: Science from Earth to Space](#)

- 23-29, IAGA, Trakoscan, Croatia, [17th Castle meeting - New Trends on Paleo, Rock and Environmental Magnetism](#)
- 30-4 September, IAHS, Birmingham, UK, [11th Annual Catchment Science Summer School](#)

### **September**

- 24-25, IAHS, Valencia, Spain, [STAHY 2020](#)
- 25-30, IAVCEI, Heraklion, Greece, [Cities on Volcanoes 11](#)
- 28-2 October, ICTP, Trieste, Italy, [Biosphere - Climate interactions in Earth System Models at global and regional scales](#)

### **October**

- 5-9, IASPEI, Cargèse, Corsica, France, [3rd International School on Earthquakes: Nucleation, Triggering, and Relationship With Aseismic Processes](#)
- 5-11, IAGA, Kazan, Russia, [XIXth IAGA Workshop on Geomagnetic Observatory Instruments, Data Acquisition and Processing](#)
- 5-16, ICTP, IUGG, Rabat, Morocco, [African Workshop on GNSS and Space Weather](#)
- 5-16, ICTP, Trieste, Italy, [Seismic Tomography and Earth Structure](#)
- 7-9, IACS, Concepción, Chile, [Third Annual Meeting of the Chilean Cryosphere Society \(SOChiCri\)](#)
- 11-17, AGI, [Earth Science Week](#)
- 19-21, IAG, Shanghai, China, [International Workshop on GNSS Ionosphere \(IWGI2020\)](#)
- 19-23, IAG, Venice, Italy, [International DORIS Service Workshop](#)
- 19-23, SCOR, Guayaquil, Ecuador, [2020 SCOR Annual Meeting](#)
- 22-24, CODATA, Paris, France, [International FAIR Convergence Symposium and CODATA General Assembly](#)
- 26-30, CCTF, Sevres, France, [22nd meeting of the Consultative Committee for Time and Frequency](#)
- 26-30, IAHS, Bydgoszcz, Poland, [IAHS/ICCE International Symposium River sediment quality and quantity: environmental, geochemical and ecological perspectives](#)
- 26-6 November, ICTP, Addis Ababa, [Integrating climate data, predictions and projections into health planning](#)

### **November**

- 2-6, IAG, Kunming, China, [22nd International Workshop on Laser Ranging](#)
- 2-6, ICL, ISC, UNESCO, UNISDR, WMO, Kyoto, Japan, [5th World Landslide Forum](#)
- 9-13, ICTP, IUGG, Trieste, Italy, [Impact and Risk Relevant Climate Information from Global Scale Projections to Local Scale Climate Hazards](#)
- 17-19, ICTP, IUGG, Buenos Aires, Argentina, [Conference on Regional Climate Modeling and Extreme Events over South America: results from the CORDEX-Flagship Pilot Study](#)
- 21-25, IAGA, URSI, Kyoto, Japan, [9th VERSIM Workshop – VLF/ELF Remote Sensing of Ionospheres & Magnetospheres](#)
- 24-28, IAHS, Cotonou, Benin, [Hydrology of the Major African Basins](#)
- IAG, IUGG, Santa Cruz de la Sierra, Bolivia, Reference Frames in Practice Seminar
- IAMAS, IUGG, Venice, Italy, Understanding the climatic response to strong volcanic eruptions - First VolMIP meeting

### **December**

- 2-8, IASPEI, IUGG, Kasane, Botswana, [3rd General Assembly of the African Seismological Commission](#)
- 7-11, AGU, San Francisco CA, USA, [AGU Fall Meeting 2020](#)

2021

***Association Scientific Assemblies***

- 15-19 February, Rotorua, New Zealand, [IAVCEI Scientific Assembly](#) (under discussion)
  - 28 June – 2 July, Montpellier, France, IAHS Scientific Assembly
  - 28 June – 5 July, Beijing, China, IAG Scientific Assembly
  - 18-23 July, Busan, Rep. of Korea, [IACS-IAMAS-IAPSO Joint Scientific Assembly](#)
  - 22-27 August, Hyderabad, India, [IAGA-IASPEI Joint Scientific Assembly](#)
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