



Joint Conference of ISEH ICEPH & ISEG on Environment and Health

Galway, Ireland
August 11-18, 2024
www.universityofgalway.ie/iseh-iceph

Call for Abstracts

Deadline: January 15, 2024

The Joint Conference of ISEH (International Symposium on Environment and Health), ICEPH (International Conference on Environmental Pollution and Health) and ISEG (Environmental Symposium on Environmental Geochemistry) will be held in Galway, Ireland. The conference was originally planned in 2020. Due to the outbreak of Covid-19, it is postponed until August 11-18, 2024. The format of this conference is in-person!

Galway is recognized as “2020 European Capital of Culture”. Located in the west of Ireland, Galway is one of the most popular tourist destinations in Europe. It is easily accessible, with frequent train connections with Dublin and frequent direct bus connections with Dublin Airport and Shannon Airport.

The conference venue is the campus of University of Galway, within walking distance of Galway’s city centre.

You are welcome to submit an abstract to the conference. Abstraction submission opens on October 1, 2023.

Visit the conference website for details and follow the instructions to submit your abstract:
www.universityofgalway.ie/iseh-iceph





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Special issues in journals:

Only session convenors are allowed to organise a special issue!

(See session details on conference website: <https://www.universityofgalway.ie/iseh-iceph/sessions>)

If you are a session convenor of this conference, and you are interested in organizing a special issue as a guest-editor for a journal, please feel free to liaise with the journal directly.

Send the following information of the proposed special issue to Conference Chair for approval:

1. Title: 'Special Issue of Joint Conference of ISEH, ICEPH and ISEG on Environment and Health: xxx ...'. You may revise the title, but the conference name must be included in the title.
2. Name of the Journal. The journal must be internationally well-recognised!
3. List of Guest Editors. Please include the convenors of your session on the list. There is no need to invite Conference Chair Prof. Chaosheng Zhang to join the guest editor team!
4. General description of the special issue with one or two paragraphs.
5. Letter or email of approval from the journal editor or manager.

Deadline for special issues to be considered: January 15, 2024.





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Conference Background

Conference Theme:
Environment, Health, GIS and Agriculture in the Big Data Era

The conference series of ISEH (International Symposium on Environment and Health), ICEPH (International Conference on Environmental Pollution and Health) and ISEG (Environmental Symposium on Environmental Geochemistry) provide internationally leading platforms for interaction between scientists, consultants, and public servants engaged in the multi-disciplinary areas of environment and health. With the fast economic development, the importance of environment and health is increasingly recognized in the world. There is a growing demand for international experts to work together on this emerging topic of common interest. Meanwhile, in the big data era, we are facing new challenges and opportunities. This conference provides a timely opportunity for a direct communication between international experts, and helps to foster and develop international collaborations.

ISEH conference history (Once every two years):

- 1st ISEH conference: SESEH (Sino-European Symposium on Environment and Health) 2012, Galway
- 2nd ISEH conference: ISEH 2014, Beijing
- 3rd ISEH conference: ISEH 2016, Galway
- 4th ISEH conference: ISEH 2018, Shanghai
- 5th ISEH conference: ISEH 2024, Galway (this conference)

ICEPH conference history (Annual conference):

- 1st ICEPH conference: ICEPH 2015, Guangzhou
- 2nd ICEPH conference: ICEPH 2016, Guangzhou
- 3rd ICEPH conference: ICEPH 2017, Guangzhou
- 4th ICEPH conference: ICEPH 2018, Tianjin
- 5th ICEPH conference: ICEPH 2019, Harbin
- 6th ICEPH conference: ICEPH 2021, Guangzhou
- 7th ICEPH conference, ICEPH 2023, Xi'An
- 8th ICEPH conference, ICEPH 2024, Galway (this conference)

ISEG conference history (Once every three years):

- 1985, the 1st ISEG, Kuopio, Finland
- 1991, the 2nd ISEG, Uppsala, Sweden
- 1994, the 3rd ISEG, Krakow, Poland
- 1997, the 4th ISEG, Vail, Colorado, USA
- 2000, the 5th ISEG, Cape Town, South Africa
- 2003, the 6th ISEG, Edinburgh, Scotland
- 2006, the 7th ISEG, Beijing, China
- 2009, the 8th ISEG, Ouro Preto, Brazil
- 2012, the 9th ISEG, Aveiro, Portugal
- 2016, the 10th ISEG, Galway, Ireland
- 2019, the 11th ISEG, Beijing, China
- 2024, the 12th ISEG, Galway (this conference)



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Landscape Photography

The conference venue is the campus of University of Galway. More than 1000 photos of Ireland, Galway and Campus of University of Galway are downloadable, free of charge, from the Google Drive, under the general guidelines of Creative Common License 4:

<https://t.co/eUOMj2kw0v>





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Conference Committees

Honorary Chairs:

| | |
|---------------|---------------------|
| Tao, Shu | Peking University |
| Selinus, Olle | Linnaeus University |

Chair:

| | |
|------------------|----------------------|
| Zhang, Chaosheng | University of Galway |
|------------------|----------------------|

Co-Chairs (ISEH & ISEG): *(in alphabetic order)*

| | |
|--------------------|--|
| An, Taicheng | Guangdong University of Technology (Environment) |
| Lin, Hui | Jiangxi Normal University (GIS) |
| O Brolchain, Niall | University of Galway (IT) |
| O'Donoghue, Cathal | University of Galway (Agriculture) |
| Zhang, Aihua | Guizhou Medical University (Health) |
| Zhang, Guoyou | The Geographical Society of China (Geography) |

Co-Chairs (ICEPH):

| | |
|-----------------|-------------------------------------|
| Zeng, Eddy | Jinan University |
| Schlenk, Daniel | University of California, Riverside |

Academic Secretary:

| | |
|---------------|---|
| Ding, Shiming | Nanjing Institute of Geography and Limnology, CAS |
|---------------|---|

Organizers:

- University of Galway
- Jinan University
- The Geographical Society of China

Co-Organisers: *(In alphabetic order)*

- Asia Resilience Center
- Beibu Gulf University
- Central South University of Forestry & Technology
- Centre for One Health, University of Galway
- Chengdu Technological University
- Chinese-European Society for Environment, Ecology & Sustainability (CESEES)
- EuroGeoSurveys Geochemistry Expert Group
- Geological Survey Ireland
- Guangdong University of Technology
- Guangzhou University
- Guizhou Medical University
- Harbin Institute of Technology
- Henan University
- IHE Delft, the Netherlands
- Indian Institute of Technology Guwahati, India
- Institute of Eco-environmental and Soil Sciences, Guangdong Academy of Sciences
- Institute of Geographical Sciences and Natural Resources Research, CAS
- Institute of Urban Environment, CAS
- International Environmental and Health Science Consortium (IEHSC)

Administration Enquiries: Go West Conference and Event Management, Gteic, Spiddal, County Galway H91 CH01, Ireland. Tel: +353-91-591222. Web: gowest.ie
Conference Administration Email: ISEH-ICEPH-ISEG@gowest.ie

Academic Enquiries: Prof. Chaosheng Zhang, International Network for Environment and Health (INEH), School of Geography, Archaeology and Irish Studies, University of Galway H91 CF50, Ireland. Tel: +353-91-49 2375 Email: Chaosheng.Zhang@universityofgalway.ie



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- International Medical Geology Association (IMGA)
- Ireland Brownfield Network
- IUGS Commission on Global Geochemical Baselines
- Nanjing Agricultural University
- Nanjing Institute of Geography and Limnology, CAS
- Nankai University
- NHC Key Laboratory of Reproductive Health
- Northwest Institute of Eco-Environment and Resources, CAS
- Peking University
- Ryan Institute, University of Galway
- South China University of Technology
- Southwest Key Laboratory of Land Resources Evaluation and Monitoring, SICNU
- The Committee on Environment and Reproductive Health, CEMS
- UNESCO International Center on Global-Scale Geochemistry
- Xiamen University
- Xi'an University of Technology
- Yantai Institute of Coastal Zone Research, CAS

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Exhibitor Package

We are excited to present an Exhibitor Package for this conference. By taking advantage of this opportunity, you will receive an exhibition table and two registrations for the event. In addition, your company name will be included on the conference website and program book. The nominal cost of this package is €2,000.

If you plan to send additional representatives to attend the conference, please note that registration fees for extra attendees will apply at the regular delegate rate.

Please email conference administration for additional information or to secure your exhibition space.



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Steering Committee: (In alphabetic order)

| Surname | FirstName | Affiliation |
|--------------|--------------|--|
| Ahmadian | Reza | Cardiff University |
| Albanese | Stefano | University of Naples Federico II |
| Alessi | Daniel | University of Alberta |
| Alvareda | Elena | Universidad de la República |
| Alvarez | Pedro | Rice University |
| An | Taicheng | Guangdong University of Technology |
| Antoniadis | Vasileios | University of Thessaly |
| Argyaki | Ariadne | National & Kapodistrian University of Athens |
| Arhin | Emmanuel | University of Energy and Natural Resources |
| Armienta | Maria Aurora | Universidad Nacional Autónoma de México |
| Ayotte | Joseph D. | U.S. Geological Survey |
| Ba | Yue | Zhengzhou University |
| Belyaeva | Olga | Center for Ecological-Noosphere Studies of NAS RA |
| Bhattacharya | Prosun | KTH Royal Institute of Technology |
| Bian | Chunlin | Tongji University |
| Birke | Manfred | Bundesanstalt für Geowissenschaften und Rohstoffe |
| Bolan | Nanthi | The University of Newcastle |
| Borch | Thomas | Colorado State University |
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| Chang | Scott X. | University of Alberta |
| Chen | Da | Jinan University |
| Chen | Fahu | Institute of Tibetan Plateau Research, CAS |
| Chen | Jianmin | Fudan University |
| Chen | Jun | Nanjing University |
| Chen | Wei | China University of Geosciences |
| Chen | Xi | Chinese Center for Diseases Control and Preventive |
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| Chen | Xunwen | Jinan University |
| Chen | Zhifan | Henan University |
| Cheng | Hefa | Peking University |



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| Cheng | Qiuming | China University of Geosciences |
| Cox | Siobhan | Queens University Belfast |
| da Silva | Cassio Roberto | Geological Survey of Brazil |
| Dai | Minhan | Xiamen University |
| Daly | Karen | Teagasc, Johnstown Castle |
| Dathe | Wilfred | Heck Bio-Pharma GmbH |
| Davies | Theophilus C. | Mangosuthu University of Technology |
| De Vivo | Benedetto | Università Pegaso |
| Demetriades | Alecos | Institute of Geology and Mineral Exploration, Athens |
| Deng | Furong | Peking University |
| Deng | Renjian | Hunan University of Science and Technology |
| Ding | Shiming | Nanjing Institute of Geography and Limnology, CAS |
| Dolan | Patrick | University of Galway |
| Dowling | Kim | Royal Melbourne Institute of Technology |
| Ducey | Thomas | US Department of Agriculture |
| Durães | Nuno | University of Aveiro |
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| Fang | Jingyun | Sun Yat-sen University |
| Fang | Liping | Guangdong institute of eco-environmental & Soil Sciences |
| Feldmann | Jörg | University of Graz |
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| Feng | Yujie | Harbin Institute of Technology |
| Finkelman | Robert | University of Texas at Dallas |
| Fiore | Saverio | Italian National Research Council |
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| Fridman | Diego | Fundación Centro de Estudios Infectológicos |
| Fu | Bojie | Beijing Normal University |
| Fu | Shenglei | Henan University |
| Fu | Weijun | Zhejiang A&F University |
| Gan | Jay | University of California, Riverside |
| Gao | Jixi | Satellite Application Center for Ecology and Environment, Ministry of Ecology and Environment |
| Gao | Yang | Institute of Geographic Sciences and Natural Resources Research, CAS |
| Gao | Yanpeng | Guangdong University of Technology |
| Garcia | Patricia | Universidade dos Açores |
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| Gelman | Faina | Geological Survey of Israel |
| Giménez-Forcaca | Elena | IGME - Instituto Geológico y Minero de España |
| Grey | Thomas | Trinity College Dublin |



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| Gu | Cheng | Nanjing University |
| Guan | Dongxing | Tianjin University |
| Guell | Cornelia | University of Exeter |
| Guo | Hai | Hong Kong Polytechnic University |
| Han | Jie | Xi'an Jiaotong University |
| Hardiman | Gary | Queen's University Belfast |
| Harty | Mary | University College Dublin |
| Hatzikioseyan | Artin | National Technical University Athens |
| He | Mengchang | Beijing Normal University |
| Hettiarachchi | Ganga | Kansas State University |
| Hou | Deyi | Tsinghua University |
| Hu | Feng | Nanjing Agricultural University |
| Hu | Min | Peking University |
| Hu | Tianpeng | Hubei Polytechnic University |
| Huang | Lei | Nanjing University |
| Huang | Qiansheng | Institute of Urban Environment, CAS |
| Huang | Zhihong | Central South University of Forestry & Technology |
| Huo | Xia | Jinan University |
| Hursthouse | Andrew | University of the West of Scotland |
| Ippolito | Jim | Ohio State University |
| Ishwaran | Natarajan | Deep-time Digital Earth |
| Ji | Junfeng | Nanjing University |
| Jiang | Guibin | Research Centre for Eco-Environmental Sciences, CAS |
| Jiang | Yufeng | Lanzhou Jiaotong University |
| Jones | Kevin | Lancaster University |
| Jordan | Gyozo | Szent Istvan University |
| Joshi | Lokesh | University of Galway |
| Kan | Haidong | Fudan University |
| Keesman | Karel | Wageningen University |
| Kersten | Michael | Johannes Gutenberg-Universität Mainz |
| Knights | Kate | Geological Survey of Ireland |
| Komárek | Michael | Czech University of Life Sciences Prague |
| Kos | Saša | Geological Survey of Slovenia |
| Kumpiene | Jurate | Luleå University of Technology |
| Ladenberger | Anna | Geological Survey of Sweden |
| Lam | Su Shiung | Universiti Malaysia Terengganu |
| Langan | Laura M | University of South Carolina |
| Laniyan | Temitope Ayodeji | University of Ibadan |



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| Lee | Woo-Kyun | Korea University |
| Lei | Mei | Institute of Geographic Sciences and Natural Resources Research, CAS |
| Lens | Piet | University of Galway |
| Li | Fangbai | Guangdong institute of eco-environmental & Soil Sciences |
| Li | Guiying | Guangdong University of Technology |
| Li | Hui | Jinan University |
| Li | Junhui | University College Cork |
| Li | Meifang | Jiangxi Normal University |
| Li | Tiantian | Chinese Center for Disease Control and Prevention |
| Li | Xia | East China Normal University |
| Li | Xiangdong | The Hong Kong Polytechnic University |
| Li | Xuhui | Henan University |
| Li | Yong | Central South University of Forestry & Technology |
| Li | Yufeng | Institute of High Energy Physics, CAS |
| Li | Zhiwen | Peking University |
| Liang | Tao | Institute of Geographical Sciences and Natural Resources Research, CAS |
| Liao | Xiaoyong | Institute of Geographical Sciences and Natural Resources Research, CAS |
| Lin | Daohui | Zhejiang University |
| Lin | Hui | Jiangxi Normal University |
| Lin | Jerry | Lamar University |
| Lin | Nan | Shanghai Jiao Tong University, China |
| Liu | Chengshuai | Institute of Geochemistry, CAS |
| Liu | Dawen | National Research Centre for Geo-Analysis |
| Liu | Guo | Chengdu University of Technology |
| Liu | Huan | Tsinghua University |
| Liu | Juan | Guangzhou University |
| Liu | Min | East China Normal University |
| Liu | Qian | Research Center for Eco-Environmental Sciences, CAS |
| Liu | Siwen | National Research Center for Geonalysis |
| Liu | Tongxu | Guangdong institute of eco-environmental & Soil Sciences |
| Liu | Wen | Peking University |
| Liu | Xingmei | Zhejiang University |
| Longhurst | Philip | Cranfield University |
| Lu | Dawei | Research Centre for Eco-Environmental Sciences, CAS |
| Lu | Guining | South China University of Technology |
| Lu | Peng | Binzhou Medical University; Monash University |
| Luo | Jian | Georgia Institute of Technology |
| Luo | Xiaosan | Nanjing University of Information Science & Technology |
| Luo | Yongming | Institute of Soil Science, CAS |
| Lyu | Xiaopu | Hongkong Baptist University |



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| Ma | Jianmin | Peking University |
| Ma | Jun | Harbin Institute of Technology |
| Ma | Lena | Zhejiang University |
| Ma | Yuxin | Shanghai Jiao Tong University |
| Mai | Bixian | Guangzhou Institute of Geochemistry, CAS |
| Manay | Nelly | University of the Republic |
| Mao | Kang | Institute of Geochemistry, CAS |
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| McKinley | Jennifer | Queen's University Belfast |
| Miler | Miloš | Geological Survey of Slovenia |
| Mohammed | Karzan A. | Sulaimani Polytechnic University (SPU) |
| Molcho | Michal | University of Galway |
| Moldanová | Jana | Swedish Environmental Research Institute |
| Morley | Terry | University of Galway |
| Morrison | Liam | University of Galway |
| Mouri | Hassina | University of Johannesburg |
| Muir | Derek | Environment & Climate Change Canada |
| Mulcahy | Maurice | Health Service Executive West, Galway |
| Négre | Philippe | French Geological Survey |
| Ni | Jinren | Peking University |
| O Brolchain | Niall | University of Galway |
| O'Donoghue | Cathal | University of Galway |
| O'Driscoll | Kieran | Queen's University Belfast |
| Ok | Yong Sik | Korea University |
| Olbert | Indiana | University of Galway |
| O'Rourke | Sharon | University College Dublin |
| Ovadnevaite | Jurgita | University of Galway |
| Pakshirajan | Kannan | Indian Institute of Technology Guwahati |
| Pan | Bo | Kunming University of Science and Technology |
| Pan | Yuepeng | The Institute of Atmospheric Physics, CAS |
| Patinha | Carla | University of Aveiro |
| Peng | Lin | Shantou University |
| Potito | Aaron | University of Galway |
| Qin | Mingzhou | Henan University |
| Rashid | Audil | University of Gujrat |
| Regan | Fiona | Dublin City University |
| Reid | Brian | University of East Anglia |
| Richards | Karl | Teagasc, Johnstown Castle |
| Rinklebe | Jörg | University of Wuppertal |



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| Rubio-Arias | Hector | Universidad Autónoma de Chihuahua |
| Ryan | Benjamin J | Belmont University |
| Ryan | Mary | Teagasc, Rural Economy & Development Centre |
| Sahinkaya | Erkan | Istanbul Medeniyet University |
| Salgueiro | Rita | University of Federal do Ceará |
| Sang | Nan | Shanxi University |
| Sari | Erol | University of Istanbul |
| Scanlon | Ray | Geological Survey Ireland |
| Schlenk | Daniel | University of California, Riverside |
| Selinus | Olle | Linneaus University |
| Serrano | Martin | Insight Centre for Data Analytics |
| Shaheen | Sabry | University of Wuppertal |
| Shen | Shuzhong | Nanjing University |
| Shi | Huahong | East China Normal University |
| Shi | Xun | Dartmouth College |
| Silva | Eduardo Ferreira da | University of Aveiro |
| Sinharoy | Arindam | University of Galway |
| Sparks | Donal | University of Delaware |
| Spillane | Charles | University of Galway |
| Stephenson | Michael | Stephenson Geoscience Consulting and Deep-time Digital Earth |
| Su | Fenzhen | Institute of Geographic and Natural Resources Research, CAS |
| Sun | Hongwen | Nankai University |
| Sun | Jian | Xi'an Jiaotong University |
| Sweetman | Andrew | Lancaster University |
| Tack | Filip | Ghent University |
| Tang | Jianhui | Yantai Institute of Coastal Zone Research, CAS |
| Tang | Ya | Sichuan University |
| Tang | Ye-Tao | Sun Yat-Sen University |
| Tao | Shu | Peking University |
| Tarvainen | Timo | Geological Survey of Finland |
| Tong | Meiping | Peking University |
| Tong | Shengrui | Institute of Chemistry, CAS |
| Torrance | Keith | University of Strathclyde |
| Tsang | Daniel C.W. | The Hong Kong University of Science and Technology |
| Tu | Chen | Institute of Soil Science, Chinese Academy of Sciences |
| Uddin | Galal | University of Galway |
| Van Cappellen | Philippe | University of Waterloo |
| Venier | Marta | Indiana University |



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| Vithanage | Meththika | University of Sri Jayewardenepura |
| Wang | Bin | Peking University |
| Wang | Chongjian | Zhengzhou University |
| Wang | Dali | Jinan University |
| Wang | Fang | Institute of Soil Science, CAS |
| Wang | Hailong | Foshan University |
| Wang | Jin | Guangzhou University |
| Wang | Jinfeng | Institute of Geographic Sciences and Natural Resources Research, CAS |
| Wang | Jingfu | Institute of Geochemistry, CAS |
| Wang | Shaobin | Institute of Geographic Sciences and Natural Resources Research, CAS |
| Wang | Shuxiao | Tsinghua University |
| Wang | Xiangke | North China Electric Power University |
| Wang | Xiaoping | Institute of Tibetan Plateau Research, CAS |
| Wang | Xueqiu | UNESCO International Center on Global-scale Geochemistry |
| Wang | Xun | Institute of Geochemistry, CAS |
| Wang | Yanxin | China University of Geosciences, Wuhan |
| Wang | Zhenghua | Hunan University of Science and Technology |
| Wang | Zimeng | Fudan University |
| Wang | Lei | British Geological Survey |
| Wang | Xilong | Peking University |
| Wang | Yonghua | Chengdu Center of China Geological Survey |
| Wei | Zhong | Nanjing Agricultural University |
| Wen | Yubo | Nantong University |
| Wheaton | Rebecca | University College Dublin |
| White | Jason W. | The Connecticut Agricultural Experiment Station |
| White | John | Louisiana State University |
| Williams | Owen | Brownfield Development Services |
| Wilson | Susan | University of New England |
| Wong | Ming-Hung | The Education University of Hong Kong |
| Wragg | Joanna | British Geological Survey |
| Wu | Fan | Jinan University |
| Wu | Fengchang | Chinese Research Academy of Environmental Sciences |
| Wu | Guangxue | University of Galway |
| Wu | Longhua | Institute of Soil Science, CAS |
| Wu | Qianyuan | Tsinghua University |
| Wu | Yingqin | Northwest Institute of Eco-Environment and Resources, CAS |
| Xia | Xinghui | Beijing Normal University |
| Xia | Xueqi | China University of Geosciences |
| Xiao | Liwen | Trinity College Dublin |



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| Xing | Baoshan | University of Massachusetts |
| Xing | Xinli | China University of Geosciences (Wuhan) |
| Xu | Elvis Genbo | University of Southern Denmark |
| Xu | Fulu | Peking University |
| Xu | Jian | Chinese Research Academy of Environmental Sciences |
| Xu | Jiang | Zhejiang University |
| Xu | Jianming | Zhejiang University |
| Xu | Shunqing | Huazhong University of Science and Technology |
| Xu | Ting | Tongji University |
| Xu | Zhihong | Griffith University |
| Yan | Bing | Guangzhou University |
| Yan | Chonghuai | Xinhua Hospital Affiliated to Shanghai Jiao Tong University |
| Yan | Wende | Central South University of Forestry and Technology |
| Yang | Cunjian | Sichuan Normal University |
| Yang | Linsheng | Institute of Geographic Sciences and Natural Resources Research, CAS |
| Yang | Xingfen | Southern Medical University |
| Yang | Zhugen | Cranfield University |
| Yin | Daqing | Tongji University |
| Yu | Xin | Xiamen University |
| Yu | Yanxin | Beijing Normal University |
| Yu | Yingxin | Guangdong University of Technology |
| Yuan | Songhu | China University of Geosciences |
| Yuan | Zengwei | Nanjing University |
| Yunta | Felipe | Joint Research Centre |
| Zappa | Achille | Insight Centre for Data Analytics |
| Zeng | Eddy | Jinan University |
| Zhan | Xinmin | University of Galway |
| Zhang | Aihua | Guizhou Medical University |
| Zhang | Chaosheng | University of Galway |
| Zhang | Gan | Guangzhou Institute of Geochemistry, CAS |
| Zhang | Guoyou | The Geographical Society of China |
| Zhang | Hua | Institute of Geochemistry, CAS |
| Zhang | Lin | Peking University |
| Zhang | Liwu | Fudan University |
| Zhang | Qian | Xiamen University |
| Zhang | Weihong | University of Ghent |
| Zhang | Yan | Fudan University |
| Zhang | Zengqiang | Northwest A&F University |
| Zhang | Zhiqiang | Beijing Forestry University |



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| Zhao | Fang-jie | Nanjing Agricultural University |
| Zhao | Keli | Zhejiang A&F University |
| Zhao | Yaqian | Xi'an University of Technology |
| Zhao | Yinbing | Chengdu University of Technology |
| Zheng | Na | Jilin University |
| Zheng | Yan | Southern University of Science and Technology |
| Zhong | Huan | Nanjing University |
| Zhou | Chenghu | Institute of Geographic and Natural Resources Research, CAS |
| Zhou | Feng | Peking University |
| Zhu | Dongqiang | Peking University |
| Zhu | Hongkai | Naikai University |
| Zhu | Hui | Northeast Institute of Geography and Agroecology, CAS |
| Zhu | Jianping | Tianjin Hangjia Airport Equipment Technology Co. Ltd |
| Zhu | Lingyan | Nankai University |
| Zhu | Mingshan | Jinan University |
| Zhu | Tong | Peking University |
| Zhu | Ying | Shanghai Jiao Tong University |
| Zhu | Yongguan | Institute of Urban Environment, CAS |

Themes and Topics

General Themes:

- Agriculture: Food quality, Precision agriculture, nutrient management, agricultural soil quality, in-field variation
- Air Pollution and Human Health
- Big data, GIS and quantitative methods in environment and population health
- Climate change and population health
- Emerging pollutants in the environment
- Environmental health and public health
- Human exposure and mechanism
- Links between environment and health, environment and genetic interaction
- Medical geology and endemic diseases
- New technologies: monitoring technologies, analytical technologies, soil remediation, wastewater treatment, air pollution control
- Microbial production of chalcogen nanoparticles
- Pollutants: metals and metalloids; persistent organic pollutants and pesticides
- Role of metals in biodegradation
- Social impact assessment, economics and policies
- Soil quality and risk assessment
- Water quality and human health



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General Topics:

- Agriculture
- Air pollution and health
- Arsenic
- Big data and data analytics
- Bioavailability and bioaccessibility
- Biochar
- Biogeochemistry
- Bioreactor concepts and design
- Cancer and environment
- Clays, coal and health
- Climate change and population health
- Contaminated land
- Disaster management
- Ecological systems
- Environmental geochemistry
- Environmental health
- Environmental management
- Environmental monitoring
- Food quality
- GIS and quantitative methods
- Health GIS
- Heavy metals
- Indoor air quality
- Machine learning in environment and health
- Medical geology
- Microbiology
- Microplastics
- Nanoparticles
- New emerging pollutants
- Pharmaceuticals
- POPs
- Risk assessment
- Reactive transport modelling
- Sediments
- Sensors and technologies
- Soil pollution and threats
- Speciation of metals and metaloids
- Urban environment
- Water quality
- Others



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Registration Fees*

| | Early-bird registration | Regular registration |
|----------------------|-------------------------|----------------------|
| Delegates | Euro 550 | Euro 650 |
| Student delegates** | Euro 300 | Euro 350 |
| Accompanying persons | Euro 180 | Euro 180 |

*The Conference registration fee includes the following:

- All conference sessions
- All poster sessions
- Coffee and Tea Breaks
- Lunches
- Welcome Reception

Not included: Conference Dinner, Fieldtrips and Optional Leisure Tours

Onsite registration for non-presenting delegates: Euro 650 (day rate not available).

** Students: A reduced registration fee is available to students enrolled in an accredited college or university programme. A copy of your student ID Card as an image is required. Send this document to Conference Administration for approval.

Important Dates

| Date | Item |
|--------------------|--|
| July 31, 2023 | Deadline for Session Proposals |
| October 1, 2023 | Abstract Submission System Opens |
| January 15, 2024 | Deadline for Abstract Submission Deadline for Special Issues in Journals Registration Opens |
| March 1, 2024 | Decision on Abstracts Notified to Authors |
| March 31, 2024 | Deadline for Early-bird Registration |
| June 15, 2024 | Unregistered Abstracts to be Removed Conference Programme Finalized |
| June 15, 2024 | Conference Accommodation Room Block Ends |
| July 3, 2024 | Online Registration Closes |
| August 11-18, 2024 | Conference and Fieldtrips Welcome Reception (Evening, Aug. 11) Main Conference (Aug. 12-15) Meet the Editors (Evening, Aug. 12; Aug. 13) Conference Gala Dinner (Evening, Aug. 14) Fieldtrips and Networking (Aug. 16-18) |

Fieldtrips: Cliffs of Moher, Connemara, Aran Islands. The purpose of the fieldtrips is to provide more opportunities of networking for delegates who wish to establish collaboration, while exploring the special natural environment of Ireland.



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Approved Sessions

87 sessions in total
Session proposal was closed on July 31, 2023.

(Highlighted session)

Wang, Zimeng (Fudan University); Van Cappellen, Philippe (University of Waterloo); Wang, Yanxin (China University of Geosciences).

Roles of Environmental Geochemistry in Addressing Global Challenges in Climate, Health and Sustainability

The purpose of this session is to encourage discussions and share practices and perspectives about the strategic progress of environmental geochemistry within the context of ongoing and future socio-environmental change. We are currently at a critical point in history, where environmental geochemistry has the potential to significantly shape the future of our planet, particularly in addressing global challenges in climate, health, and sustainability. The unique challenges and opportunities that lie ahead require us to collectively navigate through uncharted territory. During this session, leading researchers will present their valuable insights, groundbreaking ideas, and actionable research products. Their expertise and foresight will guide an open discussion on the future of environmental geochemistry as a fundamental and applied scientific field.

The session will primarily consist of invited keynote talks that will explore broad and strategic topics in environmental geochemistry. Additionally, we welcome contributed talks, particularly from early-career scientists, to showcase cutting-edge research topics and recent advances.

A key outcome of the session will be to collaboratively produce a highly influential perspective article on the role of environmental geochemistry in enabling sustainable and inclusive development paths. This collective effort will further solidify the session's contribution to the field of environmental geochemistry.

(In alphabetic order of names of 1st session convenors)

Albanese, Stefano (University of Naples Federico II); Belyaeva, Olga (Center for Ecological Noosphere Studies of NAS RA).

Radon and low-level ionizing radiations from the environment: sources, patterns, and risk assessment

Every day human beings are exposed to several invisible hazards proceeding from the environment in which they live. The long-term exposure to low-ionizing radiations (proceeding from natural of technogenic radionuclides) and to radon gas (especially in confined environments) can negatively affect the health of human beings increasing cancer incidence and mortality risks. The session is aimed at collecting contributions focusing on local, regional, and global radioecological studies and the application of methods for the deterministic and/or stochastic assessment of health risks.

An, Taicheng; Li, Guiying; Gao, Yanpeng, Yu, Yingxin (Guangdong University of Technology).

Emerging Organic Pollutants and Health Risks.

Emerging organic pollutants (EOPs) have been frequently determined in the environment and human bodies. The harmful effects associated with the exposure to EOPs are a major threat to the environment, as well as human health. This session covers topics of novel assays, tools, screening and analytical methods, environmental occurrences, exposure and health effects of emerging organic pollutants.

Arhin, Emmanuel (University of Energy and Natural Resources, Dormaa-Ghana).

Geology and Human Health

Geology contributes in many ways to human health issues - in water and air quality and quantity, natural and anthropogenic health hazards, as a controlling factor in the epidemiology of water- and air-borne diseases, and in the development of public and population health policies. This session covers topics of essential and potentially harmful elements and minerals in the earth and their impacts on health particularly in the spread of the non-communicable diseases (NCDS) in today's World.

Ba, Yue & Wang, Chongjian (Zhengzhou University).

Climate change and Health

Climate and climate change are playing an import role in human health. For example, extreme heat can increase the incidence of cardiovascular, respiratory, and mental diseases in the population. This session invites talks in the following topics: Health Risk Assessment of Climate Change, Climate Change and Health Management, Microclimate and Health

Bian, Chunlin (Tongji University).

Resilience and Urban Regeneration



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Natural disasters may have catastrophic and long - lasting impacts on communities' physical, economic, and social infrastructure. Recovery of a community's infrastructure and service following natural disasters is key for ensuring the well - being of communities and for maintaining overall social stability. In recent decades, the proposed analysis framework has been developed to quantify the resilience of urban communities. Such types of research are essential for the government at all levels to take action in hazard assessments and effective emergency management. This session highlights the important role of local knowledge from local communities at the heart of resilience enhancement strategies before a series of mitigation measures were effectively implemented to reduce related impacts and risks of geohazards.

Bolan, Nanthi (University of Newcastle); Rinklebe, Jörg (University of Wuppertal); Ok, Yong Sik (Korea University).

PFAS Beyond Defence

Poly- and perfluoroalkyl substances (PFASs) are a diverse group of synthetic fluorinated compounds, which are bio-accumulative and toxic to humans and the environment. Aqueous film forming foam (AFFF) used in firefighting is a point source of PFAS input to soil and groundwater. Recently, there have been major concerns about contamination of groundwater sources with PFAS compounds in sites that have been testing AFFF for firefighting. Many studies have detected PFAS compounds in soil and groundwater sources resulting from AFFF used in firefighting sites, especially in defence sites. Incidences of PFAS contamination of soil and groundwater sources have been noticed beyond defence sites that include landfills and wastewater treatment plants. Biosolids and landfills are two other major diffuse sources of PFAS input to soil and groundwater sources. There have been limited research on PFAS compounds from other sources and their subsequent contamination in soil and water resources. This session covers the sources, distribution, toxicity and remediation of PFAS compounds - beyond defence sites.

Cao, Wenzhi (Xiamen University).

Water environment health and ecological restoration

Water environment health is related to social and economic development, people's living environment and quality of life. Water pollution prevention and control, water environment treatment, water ecological restoration, water environment dynamic monitoring and big data analysis, water environmental health assessment, etc., are the guarantee of water ecological security.

Cave, Mark & Wragg, Joanna (British Geological Survey).

Assessing the relationship between soil and human health

Whether we live in rural or urban settings we have an intimate relationship with soil; we work with it, we grow our food in it and we play in it. We would like to invite papers on how we approach applying both qualitative and quantitative methods to the measurement of the chemical and physical aspects of soil and soil born contaminants that can impact on human health.

Chen, Jianmin & Zhang, Liwu (Fudan University).

Tropospheric multiphase chemistry.

Interactions between gas/liquid-phase species and atmospheric aerosol particles can significantly influence the chemistry of the atmosphere. Research in heterogeneous and multiphase atmospheric chemistry will be discussed in this session.

Chen, Xi (National Institute of Environmental Health, Chinese Center for Diseases Control and Preventive); Li, Yu-Feng (Institute of High Energy Physics, CAS).

Big data promoting health: Innovations for better environment.

This session will cover the acquiring and processing of environmental and health data based on high resolution remote sensing, GIS, risk assessment and management for environmental chemicals. It will also cover the exploring of the role of big data in promoting policy decision.

Chen, Xuegang (Xinjiang Normal University)

Air Pollution and Urban Heat Island of Oasis cities in arid region

Air pollution is one of the most serious environmental problems among the large cities around the world, which directly threatens the survival of human beings and has been paid much attention by people. At the same time, Urbanization also results in another well-known climatic phenomenon known as the urban heat island (UHI). UHI is an important driving force of local and regional climate and environmental change, causing many harmful consequences to social and ecological processes, and is one of the major problems facing mankind in the 21st century. The oasis cities in arid region are the areas where human activities are most concentrated and the relationship between man and land and water resources is the most complex, which needs more attention. This session will foster a collaborative dialogue among planners, designers, scholars, public administrators, and decision makers. It will contribute papers and discussion that highlight interdisciplinary approaches to addressing the environmental, economic, and social dimensions. It is of great significance to enrich the research of urban environment studies and improving the living environment in arid region.

Chen, Zhifan & Li, Xuhui (Henan University).

Environmental friendly remediation on polluted environment



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| <p>How to remediate friendly polluted environment has become concerned problem all over the world. All kinds of biological technologies and combined application of multiple technologies, such as phytoremediation, microbiology, biochar and so on, were popular in remediation research on polluted environment. However, application and mechanisms of these methods still need to be discussed and made further studies.</p> |
| <p>Cheng, Hefa (Peking University); Luo, Jian (Georgia Institute of Technology). Interfacial mass transfer in natural and engineered environmental systems: fundamental understanding and modelling Interfacial mass transfer often governs the overall transport processes that occur in natural and engineered environmental systems, such as adsorption, volatilization, precipitation, and membrane filtration. This session aims to highlight the recent advances in the understanding of interfacial mass transfer and its modelling in the context of both classical and new unsolved environmental problems.</p> |
| <p>Davies, Theophilus C. (University of Lagos) Recent Advances in Medical Geology Research in Africa. The purpose of the proposed Session is to review the current status of Medical Geology research around the Continent, document the successes, identify the knowledge gaps, address the pitfalls and take a look at the current challenges and future perspectives. It is against this backdrop that the design of further research in the subject would be predicated.</p> |
| <p>Deng, Renjian; Wang, Zhenghua (Hunan University of Science and Technology). Environmental Behaviours and Effects of Potentially Toxic Elements (PTEs) in the "Rock-Soil-Water" Media of Non-ferrous Metal Mining Areas This session aims at presenting the research development on the environmental behaviours and effects of PTEs in non-ferrous metal mining areas and informing strategies for managing and mitigating their impacts on human health and the environment. The following topics will be discussed: 1) Identification of the content, distribution characteristics, and sources of PTEs in non-ferrous metal mining areas; 2) Ecological risk assessment and environmental effects of PTEs in non-ferrous metal mining areas; 3) Activation and release processes and mechanisms of PTEs in rocks and minerals; 4) Migration and transformation behaviour and environmental fate of PTEs in soil and water environments.</p> |
| <p>Ding, Shiming (Nanjing Institute of Geography and Limnology, CAS); Tsang, Daniel C.W. (The Hong Kong Polytechnic University); Wang, Jingfu (Institute of Geochemistry, CAS). Sediment Pollution Assessment and Remediation/Management Sediment plays a critical role in maintaining the balance and health of aquatic ecosystem. Unfortunately, the accumulated pollutants in sediments are becoming a major pollution source in many freshwater and coastal systems. This Special Symposium will address recent research advances in sediment pollution assessment and remediation/management, which include but are not limited to: (1) new techniques and methods in assessment of sediment quality, (2) novel materials and engineering measures in remediation of polluted sediments, and (3) holistic paradigms in management of sediments.</p> |
| <p>Fan, Qiaohui (Northwest Institute of Eco-Environment and Resources, CAS); Wu, Yingqin (Northwest Institute of Eco-Environment and Resources, CAS); Jiang, Yufeng (Lanzhou Jiaotong University). Environmental processes, toxicology, and remediation strategies for pollutants in oil fields and typical industrial zones With the rapid development of social economy, the demand for petroleum and petroleum products has increased dramatically, resulting in increased petroleum pollution. Pollution around oil fields and industrial areas has attracted more attention. This session focuses on the topics of pollution, migration and remediation strategies of petroleum and petroleum products in the environment, with an aim to provide decision support for local environmental protection.</p> |
| <p>Feng, Yujie (Harbin Institute of Technology). Water pollution control and risk analysis Aiming the pollution problems in urban water system both in urban and rural area, the session will focus on pollution control technologies and resources recovery. The session will also focus on the risk analysis of the emergent substances in effluent.</p> |
| <p>Fu, Weijun; Zhao, Keli (Zhejiang A&F University) Soil quality and food safety in plantation ecosystem Soil is an indispensable resource and plays a crucial role in providing nutrients for plant growth and supporting human well-being. However, soil quality decrease in recent decades has posed a potential threat to global food quality, human survival, agricultural and animal husbandry production. With the continuous economic development and the improvement of living standard, people's demands for food varieties are growing. The consumption of plantation products such as nuts, bamboo shoots and so on, are often encouraged, as they could be associated with decreasing cancer risks and improve brain system. Currently, intensive management in plantations is being carried out. Such intensive management measures led to serious ecological consequence and further threaten the plant growth and the food safety. This session covers the research topics related to soil quality, food safety and ecological values of plantations worldwide.</p> |
| <p>Ge, Maofa; Tong, Shengrui (Institute of Chemistry, CAS)</p> |

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 Conference Administration Email: ISEH-ICEPH-ISEG@gowest.ie

Academic Enquiries: Prof. Chaosheng Zhang, International Network for Environment and Health (INEH), School of Geography, Archaeology and Irish Studies, University of Galway H91 CF50, Ireland. Tel: +353-91-49 2375 Email: Chaosheng.Zhang@universityofgalway.ie



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| <p>Aerosol Physicochemical Processes and its impacts in the atmosphere This session will focus on the formation processes of aerosols and their impacts on air quality, human health, radiative forcing and climate in the atmosphere. Researches on field measurements, modelling, and laboratory experiments about composition, transformation, various effects of atmospheric aerosols are welcomed.</p> |
| <p>Gelman, Faina (Geological Survey of Israel). Environmental fate of organic pollutants Contamination of soil and water resources by harmful organic compounds will be presented. The possible fate of organic pollutants in the environment including natural biotic and abiotic transformation and bioaccumulation will be discussed.</p> |
| <p>Gu, Baojing (Zhejiang University); Zhu, Hui (Northeast Institute of Geography and Agroecology). Environmental and Health Effect of Reactive Nitrogen. Nitrogen has exceeded its safe planetary boundary over two times, resulting in severe air and water pollution that damage human and ecosystem health. This session covers topics of environmental pollution, human health, ecosystem services and climate change due to reactive nitrogen use and loss in terrestrial and aquatic ecosystems.</p> |
| <p>Gu, Cheng; Zhong, Huan (Nanjing University) Interactions among Ecology, Environment and Health: An Eco-Environment & Health special session This session is organized by Eco-Environment & Health (EEH) journal, focusing on the concept of "One Health" to promote green and sustainable development, dealing with the interactions among ecology, environment and health, and the underlying mechanisms and interventions.</p> |
| <p>Guo, Hai (The Hong Kong Polytechnic University); Lyu, Xiaopu (Hong Kong Baptist University) Characteristics, sources, chemistry, and health impacts of indoor organic compounds The proposed session focuses on the understanding of spatial and temporal variations, primary emission sources and secondary formation, and adverse health impacts of gas-phase and particle-phase organic compounds in different indoor environments.</p> |
| <p>Hardiman, Gary; O'Driscoll, Kieran Thomas Anthony (Queen's University Belfast) Systems Analysis of the Impact of Waste in the Coastal Zone This session will examine the environmental fate and biological impacts of persistent organic pollutants and microplastics (µPs) exposure in sentinel marine species that can provide advanced warnings of environmental risk. It will explore recent advances in numerical modelling for fate and transport of contaminants, toxicology, Omics and systems level analyses.</p> |
| <p>Hatzikiioseyan, Artin (National Technical University of Athens) Environmental / Process Modelling Environmental modelling is an important topic for environmental engineers and scientists. The session covers topics of bioprocess modelling and simulation, wastewater treatment modelling, air pollution modelling, soil pollution and decontamination modelling.</p> |
| <p>Huo, Xia (Jinan University) Human Health at the Pollutant-Contaminated Sites Rapid innovation in the electronics industry have resulted in a fast-growing surge of waste around the globe. High-volume informal waste recycling has been reported in many countries. Specific chemical elements and compounds are components of the waste or released during the recycling process. As a result, higher levels of heavy metals and organic pollutants are found in surrounding environmental and human biospecimens in refuse disposal areas. There are associations between exposure to environment pollutants and adverse health outcomes. In particular, long-term health effects and disease risks related to pollutant-exposures deserve our attention. This session covers topics of the links between e-waste / industrial pollution and human health.</p> |
| <p>Langan, Laura M. (University of South Carolina); Brooks, Bryan W. (Baylor University); Ryan, Benjamin J. (Belmont University) Advancing one health towards urban sustainability and resiliency One health approaches inherently embrace systems-based thinking and modelling, which is particularly relevant for urbanizing regions around the world. In this session we aim to promote interdisciplinary dialogue through diverse presentations that report advances in one health to achieve more sustainable and resilient cities. In addition to welcoming submission on traditional one health topics such as harmful algal blooms and antibiotic resistance, the session encourages presentations in comparative toxicology and pharmacology, new approach methodology, environmental sensing, wastewater-based epidemiology/surveillance, and anticipatory action. This session will also welcome submissions aimed at increasing city resiliency that aligns with the United Nations Sendai Framework.</p> |
| <p>Lei, Mei; Wang, Shaobin (Institute of Geographic Sciences and Natural Resources Research, CAS) Industrial pollution and human health Industrial pollution is a special concern for human health, such as life expectancy, mortality, and disease incidence. Despite this global attention, there is still limited knowledge of industrial pollution's impact on human health in developed and emerging countries. This session will focus on the wide-ranging and in-depth study of the influencing mechanism,</p> |

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| <p>spatial-temporal process, and heterogeneity of industrial pollution (air, water, soil, and so on) on human health status. Also, we will provide an interaction platform for scientists from environmental health and sustainable industrialization in this session.</p> |
| <p>Li, Fangbai, Liu, Tongxu, Fang, Liping (Guangdong Institute of Eco-Environmental & Soil Sciences); Borch, Thomas (Colorado State University) Coupling of iron/carbon/nitrogen cycles and its environmental impact in natural and engineered wetland ecosystems Biogeochemical cycling of iron/carbon/nitrogen controls many environmental processes in natural and engineered wetland ecosystems, such as the fate of organic and inorganic contaminants, carbon/nitrogen fixation and greenhouse gas emissions. This session will highlight the state of the art in qualitative and quantitative assessment of elemental cycles in natural and engineered wetlands to help improve our understanding of how these biogeochemical processes influence the fate and mobility of contaminants and greenhouse gas emissions.</p> |
| <p>Li, Hui (Jinan University), Wei, Zhong (Nanjing Agricultural University); Chen, Xun Wen (Jinan University); Li, Junhui (University College Cork). Microbes in a Changing World: Stress Responses and Implications for Human Health Microbes play a crucial role in the environment, including nutrient cycling, plant growth, and the health of all living organisms, including humans. However, the impact of global environmental change, such as climate change, pollution, and habitat destruction, on microbial communities and their ecological functions remains unclear. As these stressors increase, microbial responses may have significant implications for local and global ecology, and human health. Understanding the impact of stressors on microbial communities and their ecological functions is therefore critical for developing strategies to promote sustainable development. This conference session aims to bring together laymen and scientists from different fields to explore the responses of microbial communities to global environmental change and their implications for human health. Possible topics include: Microbial responses to climate change, pollution, and habitat destruction; The impact of microbial responses on the health of plants, animals, and humans; The potential for using microbial communities for environmental remediation; The impact of global environmental change on the microbial composition of the human microbiome and implications for human health; Human gut microbiome in health and diseases</p> |
| <p>Lin, Daohui (Zhejiang University); Xing, Baoshan (University of Massachusetts Amherst); White, Jason W. (The Connecticut Agricultural Experiment Station); Xu, Jiang (Zhejiang University) Environmental applications and implications of nanomaterials The session communicates recent research advances on environmental applications and implications of nanomaterials, which include but are not limited to: (1) Environmental remediation applications of nanomaterials, (2) Agricultural applications of nanomaterials, (3) Environmental fate of nanomaterials, and (4) Nano-bio interactions and the ecosystem effects.</p> |
| <p>Liu, Dawen; Liu Siwen (National Research Center for Geo-analysis, China Geological Survey). Geo-health in China: Progress and Future The topics in this session include: (1) Geo-health Survey: Concept, Methodology and Application; (2) Cases study of Geo-health survey in China: including different backgrounds: high geochemical background regions, longevity villages and mining areas etc. (3) Techniques of Geo-analysis for Geo-health survey.</p> |
| <p>Liu, Juan (Guangzhou University); Liu, Cheng-Shuai (Institute of Geochemistry, CAS); Lu, Gui-Ning (South China University of Technology); Wang, Xun (Institute of Geochemistry, CAS); Lu, Dawei (Research Centre for Eco-Environmental Sciences, CAS). Heavy metal contamination, source apportionment and pollution control. Heavy metal contamination and environmental transfer, migration, and transportation in earth surface from industrial activities; source apportionment by using metal isotopes and multivariate analysis; pollution control and treatment for heavy metals in water and soils.</p> |
| <p>Liu, Wen (Peking University); Zhu, Mingshan (Jinan University). Advancement in Water Pollution and Water Treatment with Nanomaterials Currently, various functional materials and new technologies have been developed for monitoring and removal of contaminants from waters or wastewaters. Therefore, full understanding the interactions between nanomaterials and contaminants in water matrix, as well as that between nanomaterials and typical materials in natural water systems including sediment, inorganic ions, natural organic matters (NOMs) and microorganisms, is key scientific issue in this area. This session proposal fosters the exchange and discussion among scientists from different background to provide a general picture of environmental application of nanomaterials in water pollution and treatment systems. This session focuses on (but not limited to) the following fields: (1) Design and synthesis of novel functional materials for water detection and decontamination; (2) New technologies and methods on water pollution control; (3) Transport and transformation of pollutants in aquatic system and the environmental geochemical processes; and (4) Progress in theoretical and computational chemistry related to environmental applications in water treatments.</p> |
| <p>Liu, Xingmei (Zhejiang University); Zheng, Na (Jilin University); Huang, Lei (Nanjing University).</p> |



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Soil quality and risk assessment

Soil quality comprehensively represents the ability of soil to maintain productivity, purify environment and protect the health of animals and plants. Pollutants in soil are not only harmful to ecology, also can be absorbed by crops and transferred to the food chain, which directly impacts on human health. With the improvement of living standards and the deterioration of soil, people pay more attention to the health effects of soil environmental quality and food safety. Evaluating soil quality in agro-system can provide guidelines for land use management and soil environmental protection, and it can facilitate regional environmental and human health risk assessment. This symposium will focus on discussing various, especially new methods adopted in soil quality assessment. Besides, occurrence, transport, fate, and risk assessment of various pollutants in contaminated sites will also be addressed.

Longhurst, Philip (Cranfield University); Lei, Mei (Institute of Geographic Sciences and Natural Resources Research, CAS).

Health problems of farmers, farmworkers, and consumers through the extensive risk assessment

Agriculture is the foundation of the world economy, and agricultural population accounts for 41.6% of the whole population in the world. However, there is a lack of special concern to the health problems of the agricultural population. This session will focus on the health risks caused by farmland pollution through various exposure routes; the advanced health risks evaluation methods; and the strategies to alleviate these health risks. In this session, we will provide an interaction platform for scientists from environmental chemistry, human exposure and health effects, and soil remediation.

Lu, Peng (Binzhou Medical University; Monash University)

Heavy metal pollution in China: Sources and Health effects

Heavy metal pollution is increasingly becoming a problem and has become of great concern due to the adverse effects it is causing around the world. These inorganic pollutants could enter the ecosystem by various routes. Some metals affect biological functions, while other metals accumulate in one or more different organs causing many serious diseases. In this session, we would like to discuss the current heavy metal pollution situation in China and the sources of the metal pollution. We also would like to discuss the health effects associated with the multiple heavy metal exposure.

Luo, Xiaosan (Nanjing University of Information Science & Technology); Huang, Qiansheng (Institute of Urban Environment, Chinese Academy of Sciences).

Atmospheric Particulate Matters and Human Health

Atmospheric particulates pollution significantly threatens human health, resulting in various diseases both acute and chronic, respiratory, and cardio-cerebrovascular. This session welcomes talks focusing on any airborne particles linked with human health risks, which topics might cover the conventional aerosols, PM10, PM2.5, ultrafine (UFPs) or nano particles, and the emerging bioaerosols, microplastics (MPs), environmental persistent free radicals (EPFRs) in air, investigated by chemical analysis, in vitro or in vivo toxicological experiments, epidemiology, and models, etc.

Luo, Yongming; Tu, Chen (Institute of Soil Science, Chinese Academy of Sciences).

Food-chain and health risks of micro- and nano-plastics

This session focuses on 1) the uptake or ingestion of micro- and nano-plastics by different trophic levels in the environment; 2) the transfer and accumulation of micro- and nano-plastics through the food chain, and 3) the health risks of micro- and nano-plastics.

McKinley, Jennifer (Queen's University Belfast).

Compositional data analysis in Environment and Health

This session is sponsored by the International Association of Mathematical Geoscience (IAMG) and the Compositional Data Analysis Association (CoDa).

There is an increasing amount of spatial geochemical data available that can be used to explore complex relations between environmental factors and human health. Such data sets pose many challenges for accurate analysis and interpretation including the fact that correlations between raw geochemical compositional data are spurious, prone to artefacts and potentially unrelated to any natural processes. This session offers a practical forum of discussion for people concerned with the statistical treatment, modelling, and interpolation of compositional data in geochemical applications, particularly focused on geochemical mapping, the environment and health.

McKinley, Jennifer (Queen's University Belfast); Stephenson, Mickael (Stephenson Geoscience Consulting and Deep-time Digital Earth); Ishwaran, Natarajan (Deep-time Digital Earth).

Deep-time geodata: environment and the energy transition

Sustainable geological resource development can lead to economic development that benefits all, while also conserving and enhancing the natural and human environment in line with the sustainable development goals. Comprehensive, FAIR geodata will be key to developing these resources efficiently and sustainably. The International Union of Geological Sciences first big science program – Deep-time Digital Earth (DDE) - is developing the DDE Platform to provide data and new online tools that allow the key geodata properties of basins and minerals to be modelled and investigated, as well as research on systems to allow development within sustainability limits. These data and tools will be freely available to geoscientists across the world, democratising and improving access to scientific data for all. The



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| <p>session will provide talks on the DDE platform while also providing a forum for other talks on the sustainable development of geological resources for the energy transition.</p> |
| <p>Miler, Miloš; Kos, Saša Kos (Geological Survey of Slovenia)</p> <p>Climate change impacts on fate of potentially toxic elements (PTEs) and their solid carriers in the environment</p> <p>Ever-increasing climate changes are inevitably altering natural conditions in the environment and may consequently affect the behaviour of PTEs and their solid carriers in various environmental compartments. This session aims at gaining detailed insight into changes in physical and chemical characteristics of natural and anthropogenic solid carriers of PTEs and their fate in various aquatic, terrestrial and atmospheric environments, including sediments, soils, particulate matter and dusts, as a consequence of changing natural environmental conditions. It will also provide invaluable data that will serve as a baseline for more detailed studies and for modelling long-term impacts of environmental and climate changes on behaviour of PTEs and their solid carriers.</p> |
| <p>Mohammed, Karzan A. (Sulaimani Polytechnic University)</p> <p>Health Risk Assessment of Potentially Toxic Elements</p> <p>This session will investigate into the critical topic of evaluating the potential health risks posed by toxic elements in different environmental compartments. The session will explore cutting-edge methodologies, research findings, and risk management strategies, aiming to foster a deeper understanding of the impact of these elements on human health and pave the way for informed decision-making and public health interventions.</p> |
| <p>Mulcahy, Maurice (Regional Chief environmental Health Officer, Health Service Executive, Ireland).</p> <p>Environmental health threat responses</p> <p>In light of the COVID pandemic our response to emerging environmental health threats has received renewed interest. This session will consider what lessons from the pandemic response can inform our preparedness for the next emerging threats. This session covers topics of climate change, communicable disease, non-communicable disease, one health approaches, behavioural science and risk communication.</p> |
| <p>Negrel, Philippe (BRGM – French Geological Survey); Demetriades, Alecos (IUGS Commission on Global Geochemical Baselines; Institute of Geology and Mineral Exploration (IGME), Hellas (retired)).</p> <p>Geochemical mapping at all scales: evidence from soil, sediment, water and plants</p> <p><i>Session co-sponsored by the EuroGeoSurveys Geochemistry Expert Group, the IUGS Commission on Global Geochemical Baselines and the International Association of GeoChemistry (IAGC).</i></p> <p>Geochemical mapping is an established method for studying the spatial distribution of chemical elements in different media, e.g., rock, soil, water, sediment, and plants, and to document changes in their chemical composition occurring in different compartments of the ecosystem. Depending on the target and question to be answered, the resulting geochemical data can be used in mineral exploration, environmental, medical, and forensic sciences, agriculture, forestry, land use planning, etc.</p> <p>The aim of the session is to present the status of geochemical mapping in the XXI century with the rapid development of novel methods, and unavoidable presence in the digital world with focus on continental, regional and local (e.g., catchment or urban environment) scale geochemical mapping data sets, using various sampling media, like soil, sediment, water, plants, etc.</p> |
| <p>Ó Brolcháin, Niall; Morley, Terry (University of Galway).</p> <p>Data Sharing in Environment and Health</p> <p>With increasing data available in Environment and Health, the international data landscape is continuously evolving. This session explores practical measures to improve our environment, health, and well-being through sharing of Environmental and Health data. The establishment of methodologies and tools to evaluate the potential of public datasets to be shared.</p> |
| <p>Olbert, Indiana; Uddin, Galal Uddin (University of Galway); Ahmadian, Reza (Cardiff University).</p> <p>Methods, tools, and techniques for environmental assessment</p> <p>The proposed session is dedicated to exploring state of the art methods, tools, and techniques for various environmental problems. The research under this theme combines cutting-edge technology and environmental science to address pressing challenges and develop innovative solutions that can have a practical implementation in decision making and management. The session will encompass a wide range of topics to provide valuable insights, resources, and case studies showcasing the transformative power of various technologies in tackling a wide range of environmental issues.</p> |
| <p>O'Rourke, Sharon; Harty, Mary; Wheaton, Rebecca (University College Dublin).</p> <p>Soil monitoring in Environment and Agriculture</p> <p>The future of soil monitoring depends on the rapid generation of soil data. This session covers applications of portable soil sensors, drones and on-the-go technologies in monitoring soil sustainability and health.</p> |
| <p>Patinha, Carla (University of Aveiro); Cachada, Anabela (University of Porto); Durães, Nuno (University of Aveiro); Silva, Eduardo Ferreira da (University of Aveiro).</p> <p>Soil salinization: Threats and challenges to promote resilient ecosystems</p> |



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Soil is facing several threats that are causing its degradation worldwide. An example of the subtler and progressive soil degradation is the soil salinization, which negatively affects soil quality, productivity, ecosystem services and food security. One of the factors that has contributed most to these scenarios is the global warming manifested through higher and more variable temperatures, changes in precipitation patterns, higher frequency of extreme events, rise in mean sea level and, consequently, the invasion of saline waters on land.

This session will be devoted to: (a) discuss, from a multi-disciplinary perspective, the problems associated with soil degradation and climate change; (b) exchange of experience in case studies devoted to soil and fresh water salinization, as well as the plant response and adaptation to these adverse scenarios; (c) understand the changes and responses of soil biodiversity affected by salinization; (d) discuss strategies for prevention/mitigation of the degradation risk in sensitive areas.

Peng, Lin (Shantou University).

Environmental Endocrine disrupting chemicals (EDCs)

EDCs are a global problem for environmental and human health. Expanding knowledge on emerging/potential EDCs, new screening methods for exposure assessment and advancing understanding of the adverse impact of EDCs on life-cycle health become increasing urgent. This session covers topics from in vivo, in vitro trials, epidemiological studies, risk assessment models, bio-detection and chemical identification methods, and any other studies in mechanism of action, health impact assessments related to EDCs exposure and strategies for prevention.

Qin, Mingzhou (Henan University)

Environment planning for improving the people's health

With increasing caring for the relation between Environment and Health, environment planning importance is considered as the key beginning of environment management more and more since the environment is necessary exposure for human being life. This session covers topics of planning theory, planning practice, RS, GIS and their applications in Environment and Health.

Rashid, Audil (University of Gujrat); Lin, Nan (Shanghai Jiao Tong University).

Indoor air pollution and health risks

People spend more than 80% of time indoors. Indoor air quality is closely linked to human health, and challenges such as climate change and emerging pollutants exacerbate the health risks caused by indoor air pollution. This session covers topics about indoor air pollution and health risks, including but not limited to innovative air quality monitoring technologies, novel findings of indoor air pollution, health impact evidence, intervention, and best practices for preventing emission reduction and exposure minimization.

Sari, Erol (University of Istanbul).

Aquatic environment (River, Lake, Marine and Ocean) sediment quality and pollution assessment

Lake, Marine and Ocean environments have been adversely affected by ever increasing population, industrial activities, plastic use, maritime transport activities, chemical pesticides and fertilizer heavily used in agriculture, as well as domestic wastes. In this session we will discuss aquatic sediment quality and evaluate the pollution status and historical trend over the last 300 years.

Serrano, Martin & Zappa, Achille (Insight Centre for Data Analytics)

IoT data for active and healthy aging

As IoT data becomes more relevant to healthy aging this session examines the barriers to convert the currently available IoT platforms in a DYNAMIC ECOSYSTEM with connected devices and open systems and architectures integrated within different areas. This session covers all topics related to IoT including, data, platforms, technologies and standards.

Shi, Huahong (East China Normal University); Xu, Elvis Genbo (University of Southern Denmark); Zeng, Eddy Y. (Jinan University).

Environmental fate, ecotoxicity, and health effects of micro- and nanoplastics.

Environmental impacts and health risks of microplastics have become a widespread scientific and societal concern due to the dramatic increase in the production and consumption of plastics. More recently, plastic particles of nanoscale, i.e., nanoplastics, have started to attract growing attention from scientists and environmental managers because of their easier bioaccumulation, stronger toxic effects, and less understood mechanism of toxicity compared to larger plastic particles. This session aims to cover a broad range of topics on the occurrence, transport, fate, ecotoxicity, and health effects of micro- and nanoplastics, which will significantly enhance our understanding of the plastic particle issues.

Shi, Xun (Dartmouth College); Li, Meifang (Jiangxi Normal University; Dartmouth College)

Spatial Analysis and Spatial Statistics for Environmental Health Studies

New methods in spatial analysis and spatial statistics have been constantly emerging to achieve a more scientifically rigorous quantification of spatial associations between diseases and environmental risks. This session invites presentations on novel geospatial methods, algorithms, and procedures for environmental health studies.

Sun, Jian (Xi'an Jiaotong University).

Aerosol Exposure and Health



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| <p>Aerosols, including primary emitted and secondary formed, contains lots of toxic chemicals which are harmful to human health. Exploring new approaches in evaluating health effects of aerosol exposure is important and urgent in Environment Health studies. This section covers topics of in-vivo, in-vitro, risk assessment model, epidemiology and any other studies in Aerosol Exposure and Health Effect Evaluation.</p> |
| <p>Sweetman, Andrew (Lancaster University); Zhu, Ying (Shanghai Jiao Tong University). Sources, fate and environmental and human health risks of emerging chemicals Awareness of the importance of chemicals of emerging concern has increased because of their potentially high environmental and/or human health risks. These substances include but not limited to pharmaceuticals and personal care products ingredients, PFOA and PFOS, neonicotinoid pesticides and new flame retardants etc. However, there is currently limited knowledge on sources, fate, and risks both regionally and globally for many of these chemicals. This session covers topics across this field, especially focussing on modelling work on sources, fate, exposure pathways and environmental/human health risks.</p> |
| <p>Tang, Jianhui (Yantai Institute of Coastal Zone Research, CAS); Ma, Yuxin (Shanghai Jiao Tong University); Zhang, Qian (Xiamen University) Dynamics and Biogeochemical Process of Emerging Contaminants in Estuarine, Coastal, and Shelf Regions This session focuses on the study of emerging contaminants (ECs) in the estuarine, coastal, and shelf regions, with an emphasis on their occurrence, dispersion, transformation, transport, and bioaccumulation. ECs encompass a wide range of chemicals, materials, and pathogens that have only recently been identified or are not yet regulated but can have significant adverse effects on human and ecological health. Examples of ECs include per- and polyfluoroalkyl substances, halogenated flame retardants, pharmaceutical and personal care products, micro/nano-plastics, and antibiotic resistance genes, etc. By exploring the dynamics of ECs in these environments, this session aims to enhance our understanding of their potential impacts and inform future management strategies.</p> |
| <p>Tsang, Daniel (Hong Kong Polytechnic University); Hou, Deyi (Tsinghua University). Data driven sustainable remediation of contaminated land Submissions in the areas of new development for green and sustainable remediation, mapping soil pollution with multivariate analysis and GIS techniques, use of big data in environmental pollution prevention and remediation, etc.</p> |
| <p>Wang, Bin (Peking University); Li, Zhiwen (Peking University); Yu, Yanxin (Beijing Normal University). Environmental Pollution and Reproductive Health The adverse effects of various environmental pollutants on human reproductive health have been attracting worldwide concern. This session covers the topic about the associations of population exposure to organic pollutants and inorganic toxic metal(loid)s with adverse reproductive outcomes from the epidemiological studies, as well as the mechanism studies using animal models.</p> |
| <p>Wang, Hailong (Foshan University). Biochar function in environment and health This session covers topics on the relationship between the biochar function and environmental health, and the role of biochar in environmental management and remediation. We wish to promote international cooperation in biochar research and development related to environment and health.</p> |
| <p>Wang, Jin (Guangzhou University); Liu, Qian (Research Center for Eco-Environmental Sciences, CAS); Tang, Ye-Tao (SunYet-Sen University);; Zhu, Hong-Kai (Naikai University). Geochemical behaviour and toxicology effect of metal pollutants and their pollution control Migration and transformation behaviour, spatial and temporal distribution characteristics of metal pollutants in the environment, ecological toxicology of multiple pollutants and their pollution control.</p> |
| <p>Wang, Shuxiao (Tsinghua University); Li, Tiantian (Chinese Center For Disease Control And prevention) Climate change, air pollution, and human health Air pollution and climate change are two grand challenges facing our planet today, and they are deeply interconnected. These two crises share common sources and both significantly threaten human health. This session welcomes talks on the interactions and compounding effects of climate change, air quality and human health, including but not limited to, air pollution and its adverse impacts on public health, health risks of climate change and extreme weather events, population exposure to air pollution, meteorological factors, human health and air quality co-benefits of climate policies, health-oriented solutions for clean air and carbon neutrality, etc.</p> |
| <p>Wen, Yubo (Nantong University). Soil Contamination in Agricultural Lands and Associated Human Health Risk Soil pollutants in agricultural lands include a wide variety of contaminants (organic and inorganic chemicals), which can be derived from anthropogenic-related activities, or naturally occurring in soil. Their transfer to local food chains and biological reactions to some specific pollutants may cause diseases such as fluorosis, cadmium poisoning, cancer, and others. The migration and transformation of pollutants in the food chain (soil-plant-human) and the disease risks related to pollutant exposures deserve our attention. This session covers topics of the links between agricultural soil pollution and human health.</p> |
| <p>Wu Guangxue (University of Galway); Wu, Qianyuan (Tsinghua University).</p> |



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| <p>Water-Health-Energy-Ecosystem Nexus within water cycle Nowadays, we are facing water pollution and shortage, health threat, energy crisis, and ecosystem deterioration, which requires the “nexus” approach to tackle all these challenges. This session will focus on transboundary development in the underlying mechanisms of biogeochemical processes, new concepts for “nexus” management, novel technology for pollution control, and case studies for practical application within water cycle.</p> |
| <p>Wu, Fan; Wang, Dali (Jinan University). Environmental impacts of engineered nanomaterials throughout life cycle One of the aims of environmental nanotechnology and nanoscience is to enable engineering of nanomaterials which enhances utility while minimizing environmental risks. Combining risk assessment with life cycle assessment results has great potential to enhance the understanding of nanomaterials environmental impacts. This session will place high importance on the risk evaluation of nanomaterials, such as environmental fate, exposure, organismal uptake, bioavailability, toxicity. The overarching goal of this session is to utilize risk assessment results to support the impact analyses of nanomaterials throughout life cycle.</p> |
| <p>Xia, Xueqi (China University of Geosciences, Beijing); Ji, Junfeng (Nanjing University). High Values of Soil Heavy Metal Background Caused by Geological Processes Some geological bodies and/or their weathering processes may cause high heavy metal concentration in soil. This session covers topics about transformation and movement of the natural occurring pollutants, the interaction of the natural processes with human disturbances, the risk evaluation and remediation of this kind of soil hazards.</p> |
| <p>Xiao, Liwen; Grey, Thomas (Trinity College Dublin). Neighbourhoods for health, inclusion, and climate action Neighbourhoods for health, inclusion, and climate action: Key international literature and policy identifies the neighbourhood as a critical scale to tackle the interconnected challenges of climate change, health, and inclusion. Based on co-creation and a transdisciplinary approach, this session will examine the built environment of our neighbourhoods to reveal synergies to improve quality of life, inclusive design, and a just transition to towards climate responsive communities</p> |
| <p>Xing, Xinli (China University of Geosciences (Wuhan)); Hu, Tianpeng (Hubei Polytechnic University); Jones, Kevin (Lancaster University); Hou, Deyi (Tsinghua University). Sedimentary record characteristics of persistent toxic pollutants in aquatic environment for the Anthropocene The beginning of the Anthropocene has been under contention in recent decades, and it is important to evaluate the stratigraphic signals recorded by sediments, ice cores, peat, etc. Marine and lacustrine sediments are the easiest records to obtain and study. The 65 Global Stratotype Section and Points (GSSPs) determined to date are all placed in marine sedimentary strata, except for the GSSP of the Holocene. In this session, we will discuss the sedimentary record characteristics of persistent toxic pollutants such as heavy metals, persistent organic pollutants, and microplastics etc., and explore the most suitable markers for the Anthropocene in aquatic environments.</p> |
| <p>Yan, Wende; Huang, Zhihong; Li, Yong (Central South University of Forestry & Technology) Mine waste land pollution and phytoremediation Heavy metal contamination in soils caused by mining activities has become a major environmental concern globally. Phytoremediation has been widely accepted for its low cost, friendly human-environment relationship, aesthetic effect, and long-term applicability. This session covers topics of soil pollution in mine waste and its phyto-remediation.</p> |
| <p>Yang, Zhugen (Cranfield University); Zhang, Hua (Institute of Geochemistry, CAS). Sensors for Environmental Diagnostics and Remediation Sensors provide a sensitive and selective platform for rapid monitoring of chemical, biological, and microbial contaminant, which is of significant importance for the effective remediation. This session will bring together experts in sensors development, point-of-use analysis, advance analytical science, and remediation for environment and health.</p> |
| <p>Yin, Daqiang (Tongji University); Sang, Nan (Shanxi University); Xu, Ting (Tongji University) Neurotoxicology of Emerging Contaminants The abnormality of the nervous system is currently a health issue with high concern, which is suspected to be associated with the exposure of various emerging contaminants. Unveiling the underlying mechanisms and toxicological pathways involved in the neurotoxic processes sheds light on the health risks of these pollutants. New methods and models in research are encouraged.</p> |
| <p>Yu, Xin (Xiamen University); Fang, Jingyun (Sun Yat-sen University) Microbiological risks in drinking water and the control technologies This session covers the topics of occurrence and spreading of pathogenic bacteria, viruses, protozoa and toxin-producing algae in drinking water system; Characterization of emerging waterborne pathogens and the derived microbiological contaminants; Microbiological risk assessment and reduction, conventional and emerging control technologies.</p> |
| <p>Yuan, Songhu; Wang, Yanxin (China University of Geosciences (Wuhan)). Iron related reactions and processes and the influence on water quality</p> |



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| <p>Iron in dissolved and solid phases is abundant in the environment. Biogeochemical reactions and processes associated with iron are coupled to a wide range of elements cycling (i.e., C, N, Fe, S, As, etc) and contaminants transformation, and thus impact the quality of groundwater and surface water. This session covers topics of fundamental processes about iron cycling in different phases, redox reactions and processes related to iron and influence of the processes on water quality.</p> |
| <p>Zhang, Aihua (Guizhou Medical University); Yang, Xingfen (Southern Medical University). Health damage and health risk assessment of environmental pollution More and more diseases have been proved to be related to environmental pollution. It is important to reveal the health damage induced by environmental pollution and establish effective method of health risk assessment to prevent and control pollution-related diseases. This session covers topics: pollution-related health damage and its mechanism, intervention study in pollution-related diseases, biomarkers of environmental pollutant exposure, health risk assessment of environmental pollutant exposure, application of big data and bioinformatics in the study of environmental pollution and health damage.</p> |
| <p>Zhang, Chaosheng (University of Galway); Patinha, Carla (University of Aveiro); Laniyan, Temitope Ayodeji (University of Ibadan); Alvareda, Elena (Universidad de la República) Medical geology: An emerging discipline Medical Geology is defined as the science dealing with the relationship between geological factors and health problems in humans, animals and plants. This emerging discipline requires a multidisciplinary approach using a wide variety of specialists from geologists, geochemists and medical doctors to veterinarians and biologists. This session covers latest development of medical geology including new aspects, emerging materials, as well as new methodologies.</p> |
| <p>Zhang, Hua; Mao, Kang (Institute of Geochemistry, CAS) Diagnostics and Remediation of Environment and Health With the widespread attention paid to Environment and Health, diagnostics and remediation techniques are playing an important role in evaluation and remediation of environmental health and public health. This session covers topics of analytical techniques, remediation techniques, environmental and public health evaluation techniques and their applications in Environment and Health.</p> |
| <p>Zhang, Yan (Fudan University); Liu, Huan (Tsinghua University); Matthias, Volker (Helmholtz-Zentrum Geesthacht GmbH, Institute of Coastal Research); Moldanová, Jana (Swedish Environmental Research Institute). Air pollution and health effects from ship and port-related emissions. Shipping is an important source for air pollution, in particular in coastal areas and big ports. This session includes modeling and observational studies on emissions from ships and ports, their impact on air quality and deposition and finally on human health and terrestrial/marine ecosystem changes.</p> |
| <p>Zhang, Zengqiang (Northwest A&F University) Organic waste composting and land utilization Organic solid waste, including agricultural waste, municipal sludge, and domestic waste, has become the main source of environmental pollution because of its high-water content, easy to rot and stink. Aerobic composting treatment of organic solid waste can not only eliminate pollution and reduce volume, but also turn waste into treasure and produce organic compost that can improve soil and fertilize fields, which can achieve many things at one stroke.</p> |
| <p>Zhang, Zulin (The James Hutton Institute); Guan, Dong-Xing (Tianjin University); Chen, Wei (China University of Geosciences). Passive Sampling of Organic Contaminants in Environment Passive sampling has made enormous advancements over the last few decades and has evolved into a highly versatile tool to study organic contaminants in a multitude of environments. This session covers topics of passive sampling method advances, applications of passive sampling in aquatic, atmospheric and terrestrial environment, passive sampling for routine monitoring and regulatory purposes of organic contaminants.</p> |
| <p>Zhao, Yinbing (Chengdu University of Technology) Urban and regional resilience and spatial planning Influenced by global climate change and regional development, the resilience of urbans and regions today is affected by environmental diversity, complexity, and uncertainty. This session focuses on how to achieve the goal of sustainable development through theory, technology, method innovation, combined with space planning and control and other practices.</p> |
| <p>Zheng, Yan (Southern University of Science and Technology); Ayotte, Joseph (United States Geological Survey) Advances in Geohydrologic Statistical Models for Environmental Health Risk Assessment. Exposure to geogenic and anthropogenic contaminants in groundwater is a major public health concern in many countries. This has motivated the development and applications of statistical models, informed by geology and hydrology that allow for an enhanced risk assessment with some predictive capability and estimation of uncertainty. Contributions addressing recent advances in the applications of machine-learning methods in such modelling efforts are encouraged.</p> |



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Zhou, Feng (Peking University); Zhang, Lin (Peking University); Gao, Yang (Institute of Geographic Sciences and Natural Resources Research, CAS); Pan, Yuepeng (The Institute of Atmospheric Physics, CAS).

Global nitrogen cycle and its environmental consequences.

We seek contributions from novel studies that conduct site-level experiments, satellite observations, globally-compiled datasets, and modelling simulations of global nitrogen cycling processes, and that quantify the environmental impacts on air or water quality and related health risks.

Zhu, Lingyan (Nankai University); Chen, Da (Jinan University); Venier, Marta (Indiana University).

Emerging Contaminants of High Concerns: Environmental Processes and Human Exposure

Due to restrictions on the production and application of some environmentally-related chemicals, a variety of substitutes, which are considered to be less bioaccumulative or persistent, emerge in the environment and attract great concerns over their potential environmental risks. This session covers the topics of emerging organic pollutants in the environment and associated human health risks, including their occurrence and source identification in multiple environmental media; bioaccumulation and trophic transfer, transport and transformation in the environment, as well as human exposure via multiple pathways.



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Contact

For administrative queries, contact:

Go West Conference and Event Management
Gteic, Spiddal, County Galway
Postal Code: H91 CH01, Ireland.
Tel: +353-91-591222
Web: gowest.ie
Conference email address: ISEH-ICEPH-ISEG@gowest.ie

For queries related to academic issues, contact:

Prof. Chaosheng Zhang
Conference Chair, Joint Conference of ISEH, ICEPH & ISEG
Vice Dean for Research, CASSCS
Director, International Network for Environment and Health
School of Geography, Archaeology & Irish Studies
University of Galway
Postal code: H91 CF50
IRELAND
Tel: +353-91- 492375
Email: Chaosheng.Zhang@universityofgalway.ie
Web1: www.universityofgalway.ie/our-research/people/geography-and-archaeology/chaoshengzhang
Web2: www.universityofgalway.ie/ineh

For general queries from Chinese delegates, contact:

Prof. Shiming Ding
Academic Secretary, Joint Conference of ISEH, ICEPH & ISEG
State Key Laboratory of Lake Science and Environment
Nanjing Institute of Geography and Limnology
Chinese Academy of Sciences
Nanjing 210008, China
Tel: +86-25-86882207
Email: smding@niglas.sc.cn