

















RLS- Sciences April Digital Week 2023

Virtual Event

24-28 April 2023, 19:30 - 21:30 China Standard Time



Shandong in RLS-Sciences: Forward from Herrsching

Concept: 5x1: Mon-Tue-Wed-Thu-Fri (19:30 - 21:30 CST); per day, 2 hour session

Times per Region: 7:30-9:30 Québec, Georgia

8:30-10:30 São Paulo

13:30-15:30 Bavaria, Upper Austria, Western Cape

19:30-21:30 Shandong

Monday, 24 April	Tuesday, 25 April	Wednesday, 26 April	Thursday, 27 April	Friday, 28 April
Energy • Mitigating Climate Change: a regional perspective on challenges and opportunities in the energy transition	Small Satellites • Small Satellites • Ground Station Network • Data Analysis	Aerospace • Sustainable (Aero)Space: Protecting our Environment with Technological Innovation	Digital Health ● The Role of Data in Digital Health	Joint Interdisciplinary Session Summary per day Big Trends in Science and Technology in Shandong (Energy, Aerospace, Digital Health) RLS-Sciences

Conference Information:

Hosting Region: Province of Shandong

Conference Committee: RLS-Sciences Presidency Group and RLS-

Sciences Overall Management Team

Conference Management: Munich Management Team

Aims:

- Opportunity for Shandongese and other researchers who could not participate in September 2022 to hear presentations, as well as contribute to further the scientific exchanges from Herrsching
- Greater integration of Shandong scientific community into the RLS-Sciences network



RLS- Energy Network

Virtual Event

24 April 2023, 19:30 - 21:30 China Standard Time

RLS-Energy Network Session

19:30-21:30 China Standard Time

Mitigating Climate Change - a regional perspective on challenges and opportunities in the energy system

- Welcoming Message and Session Opening (19:30 China Standard Time)
 - o RLS-Sciences President, Dr. Sebastian GOERS, Upper Austria
 - o "Mitigating Climate Change through Energy Systems: Learnings from Herrsching", Prof. Ralf LUDWIG, Bavaria
- Shandong Contributions (19:50, China Standard Time)
 - "Research progress and prospects of key materials and technologies for hydrogen production in Shandong ProvinceProf.
 Angang SONG and Prof. Heging JIANG, Shandong
 - o "Efficient production of bio-natural gas from multiple organic solid waste", Dr. Haipeng XU and Dr. Shujuan LIAN, Shandong
 - "Structural Design and Performance Study of Nickel-rich Layered Oxide Cathode Materials for Lithium-ion Power Batteries", Prof. Bo WANG, Shandong
- Forward from Herrsching (20:35, China Standard Time)
 - "Technical Innovations in Energy Projects: Future Lab REDEFINE H2E and Photo2Fuel", Dr. Sebastian FENDT and Dr. Reinhart SCHWAIBERGER, Bavaria
 - "Interdisciplinary challenges and opportunities for hydrogen projects in Austria and the EU", Mag.a. Argjenta VESELI, Upper Austria
 - o "Energy Transition & Deep Green Hydrogen", Prof. Thiago LOPES, São Paulo
 - o "Update on the hydrogen sector in Quebec", Prof. Simon BARNABÉ, Québec
- Session Conclusion and Next Steps (21:20, China Standard Time)
 - o RLS-Sciences President, Dr. Sebastian GOERS, Upper Austria

Aims:

- Opportunity for Shandongese and other researchers who could not participate in September 2022 to hear presentations, as well as contribute to further the scientific exchanges from Herrsching
- Greater integration of Shandong scientific community into the RLS-Sciences network

Join the session here:

ZOOM Link:

https://us02web.zoom.us/j/85109267955?pwd= VVhqZjJHUGJsYXFYWSt3NU44Q1JqZz09

Meeting ID: 851 0926 7955

Passcode: 445318

Times per Region:

7:30-9:30: Québec, Georgia 8:30-10:30: São Paulo

13:30-15:30: Bavaria, Upper Austria, Western Cape



RLS- Small Satellites

Virtual Event

25 April 2023, 19:30 - 21:30 China Standard Time

RLS-Small Satellites Session

19:30-21:30 China Standard Time

RLS-Small Satellites: Satellites, Ground Station Network, and Data Analysis

- Welcoming Message and Session Opening (19:30 China Standard Time)
 - o RLS-Sciences Vice-President Prof. João AZEVEDO, São Paulo
 - o Prof. Klaus SCHILLING and team, Bavaria
- Shandong Contributions (19:50, China Standard Time)
 - o "Marine Ecological Environment Monitoring Based on Satellite Remote Sensing Images", Prof. Yunsen WANG, Shandong
 - o "Satellite crowdsourcing computing and application service platform", Prof. Yingjie WANG, Shandong
 - o "Three Shandong Small Satellites", Prof. Lianxiang JIANG, Shandong
- Forward from Herrsching (20:35, China Standard Time)
 - o "INPE Small Satellites". Dr. Walter Abrahão DOS SANTOS. São Paulo
 - o "Rain Forest Amazon Mission", Prof. Geilson LOUREIRO, São Paulo
- Session Conclusion and Next Steps (20:50, China Standard Time)
 - o Prof. Klaus SCHILLING, Bavaria

Aims:

- Opportunity for Shandongese and other researchers who could not participate in September 2022 to hear presentations, as well as contribute to further the scientific exchanges from Herrsching
- Greater integration of Shandong scientific community into the RLS-Sciences network

Join the session here:

ZOOM Link:

https://us02web.zoom.us/j/85109267955?pwd= VVhqZjJHUGJsYXFYWSt3NU44Q1JqZz09

Meeting ID: 851 0926 7955

Passcode: 445318

Times per Region:

7:30-9:30: Québec, Georgia 8:30-10:30: São Paulo

13:30-15:30: Bavaria, Upper Austria, Western Cape



RLS- Global Aerospace Campus

Virtual Event

26 April 2023, 19:30 - 21:30 China Standard Time

RLS-Global Aerospace Campus Session

19:30-21:30 China Standard Time

Sustainable (Aero)Space: Protecting our Environment with Technological Innovation

- Welcoming Message and Session Opening (19:30 China Standard Time)
 - o RLS-Sciences Vice-President Prof. João AZEVEDO, São Paulo
 - o Prof. Klaus DRECHSLER (video contribution), Bavaria
- Shandong Contributions (19:45, China Standard Time)
 - o "Scientific Achievements and future trends of energy, aerospace, and digital health in Shandong", Dr. Ye ZHANG, Shandong
 - "Aerospace Carbon Reduction: Exploring Advanced Fiber Composites and Self-Lubricating Technologies for Sustainable Solutions", Dr. Xuqing LIU, Shandong
- Forward from Herrsching (20:25, China Standard Time)
 - o "Quo vadis Urban Air Mobility: An European perspective", Dr. Kay PLÖTNER, Bavaria
 - o "Sustainable Aviation Challenges & Opportunities", Mr. Maurílio Albanese NOVAES JÚNIOR, São Paulo
 - o "Demand modeling for traditional and emerging forms of air transportation", Prof. Laurie GARROW, Georgia
 - o "A survey of flight management systems design to reduce CO2 emissions", Prof. Luis RODRIGUES, Québec
- Session Conclusion and Next Steps (21:05, China Standard Time)
 - o Prof. William Roberto WOLF, São Paulo and Dr. Peter HÜLSE, Bavaria

Aims:

- Opportunity for Shandongese and other researchers who could not participate in September 2022 to hear presentations, as well as contribute to further the scientific exchanges from Herrsching
- Greater integration of Shandong scientific community into the RLS-Sciences network

Join the session here:

ZOOM Link:

https://us02web.zoom.us/j/85109267955?pwd= VVhqZjJHUGJsYXFYWSt3NU44Q1JqZz09

Meeting ID: 851 0926 7955

Passcode: 445318

Times per Region:

7:30-9:30: Québec, Georgia 8:30-10:30: São Paulo

13:30-15:30: Bavaria, Upper Austria, Western Cape



RLS-Digital Health

Virtual Event

27 April 2023, 19:30 - 21:30 China Standard Time

RLS-Digital Health Session

19:30-21:30 China Standard Time

The Role of Data in Digital Health

- Welcoming Message and Session Opening (19:30 China Standard Time)
 - o RLS-Sciences Vice-President, Prof. Kodjo AGBOSSOU, Québec
 - o Dr. Sebastian BICKELHAUPT, Bavaria
- Shandong Contributions (19:45, China Standard Time)
 - o "Optimizing Enlarging Big Data to Predict and Prevent Disease", Prof. Sijin LIU, Shandong
 - o "Federal Big Data Platform for Medical Sciences and its Tools", Prof. Fuzhong XUE, Shandong
- Forward from Herrsching (20:25, China Standard Time)
 - o "Al based Medical Data Analysis Research Project MC3", Dr. Michael GIRETZLEHNER, Upper Austria
 - o "Methods in Digital Health", Prof. Paulo Mazzoncini de AZEVEDO-MARQUES, São Paulo
 - o "International Models for Data Sharing in Digital Health", Prof. WenZhan SONG, Georgia
- Session Conclusion and Next Steps (21:05, China Standard Time)
 - o Prof. Yves JOANETTE, Québec and Prof. Agma TRAINA, São Paulo with Dr. Sebastian BICKELHAUPT, Bavaria

Aims:

- Opportunity for Shandongese and other researchers who could not participate in September 2022 to hear presentations, as well as contribute to further the scientific exchanges from Herrsching
- Greater integration of Shandong scientific community into the RLS-Sciences network

Join the session here:

ZOOM Link:

https://us02web.zoom.us/j/85109267955?pwd= VVhqZjJHUGJsYXFYWSt3NU44Q1JqZz09

Meeting ID: 851 0926 7955

Passcode: 445318

Times per Region:

7:30-9:30: Québec, Georgia 8:30-10:30: São Paulo

13:30-15:30: Bavaria, Upper Austria, Western Cape



RLS-Sciences

Virtual Event

28 April 2023, 19:30 - 21:30 China Standard Time



RLS-Sciences Joint Interdisciplinary Session

19:30-21:30 China Standard Time

Shandong and RLS-Sciences: Forward from Herrsching

- Opening Statement (19:30 China Standard Time)
 - o RLS-Sciences President, Dr. Sebastian GOERS, Upper Austria
- Session Summaries (19:35, China Standard Time)
 - o Energy Network, Dr. Reinhart SCHWAIBERGER, Bavaria
 - o Small Satellites, Dr. Alexander KLEINSCHRODT, Bavaria
 - o Global Aerospace Campus, Dr. Peter HÜLSE, Bavaria
 - o Digital Health, Dr. Sebastian BICKELHAUPT, Bavaria

• Big Trends in Science and Technology in Shandong (19:55, China Standard Time)

Introduction: Prof. Hetong YANG, Shandong RLS-Sciences Scientific Coordinator Moderation: Ms. Xiaohong GUO, RLS-Sciences Administrative Coordinator

- o Renewable Energy, Dr. Can JI and Dr. Jing CHENG
- o "Smallsat development activities in Shandong Province", Prof. Mingxiang LI
- o "Layout of Aerospace New Energy Business and a High Precision BMS Solution", Dr. Weilong LIU
- $\circ\,\,$ "Al for Medical Sciences- Trends and Practice in Shandong", Prof. Changbin YU

• Session Conclusion and RLS-Sciences Next Steps towards 2024 (20:55, China Standard Time)

- RLS-Sciences President, Dr. Sebastian GOERS, Upper Austria, RLS-Sciences Vice-President Prof. Kodjo AGBOSSOU,
 Québec, Prof. João AZEVEDO RLS-Sciences Vice-President São Paulo, and Dr. Florence GAUZY, Bavaria
 - o Including **RLS-Sciences Updates:** Documentation, Newsletters and Special Editions, RLS-Sciences Library and Conference Proceedings, Ms. Fiona RUMOHR, Bavaria

Aims:

- Opportunity for Shandongese and other researchers who could not participate in September 2022 to hear presentations, as well as contribute to further the scientific exchanges from Herrsching
- Greater integration of Shandong scientific community into the RLS-Sciences network

Join the session here:

ZOOM Link:

https://us02web.zoom.us/j/85109267955?pwd= VVhqZjJHUGJsYXFYWSt3NU44Q1JqZz09

Meeting ID: 851 0926 7955

Passcode: 445318

Times per Region:

7:30-9:30: Québec, Georgia 8:30-10:30: São Paulo

13:30-15:30: Bavaria, Upper Austria, Western Cape