



RLS- Sciences April Digital Week 2023

"Shandong in RLS-Sciences: Forward from Herrsching"

24-28 April 2023, 19:30 - 21:30 CST (Virtual Event)





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
<p>Energy</p> <ul style="list-style-type: none"> • Mitigating Climate Change: a regional perspective on challenges and opportunities in the energy transition 	<p>Small Satellites</p> <ul style="list-style-type: none"> • Small Satellites • Ground Station Network • Data Analysis 	<p>Aerospace</p> <ul style="list-style-type: none"> • Sustainable (Aero)Space: Protecting our Environment with Technological Innovation 	<p>Digital Health</p> <ul style="list-style-type: none"> • The Role of Data in Digital Health 	<p>Joint Interdisciplinary Session</p> <ul style="list-style-type: none"> • 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 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)**

- RLS-Sciences President, Dr. Sebastian GOERS, Upper Austria
- “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 Province Prof. Angang SONG and Prof. Heqing JIANG, Shandong
- “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
- “Energy Transition & Deep Green Hydrogen“, Prof. Thiago LOPES, São Paulo
- “Update on the hydrogen sector in Quebec”, Prof. Simon BARNABÉ, Québec

● **Session Conclusion and Next Steps (21:20, China Standard Time)**

- RLS-Sciences President, Dr. Sebastian GOERS, Upper Austria

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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*)

- RLS-Sciences Vice-President Prof. João AZEVEDO, São Paulo
- Prof. Klaus SCHILLING and team, Bavaria

● **Shandong Contributions** (19:50, *China Standard Time*)

- “Marine Ecological Environment Monitoring Based on Satellite Remote Sensing Images”, Prof. Yunsen WANG, Shandong
- “Satellite crowdsourcing computing and application service platform”, Prof. Yingjie WANG, Shandong
- “Three Shandong Small Satellites”, Prof. Lianxiang JIANG, Shandong

● **Forward from Herrsching** (20:35, *China Standard Time*)

- “INPE Small Satellites”, Dr. Walter Abrahão DOS SANTOS, São Paulo
- "Rain Forest Amazon Mission", Prof. Geilson LOUREIRO, São Paulo

● **Session Conclusion and Next Steps** (20:50, *China Standard Time*)

- Prof. Klaus SCHILLING, Bavaria

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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)**

- RLS-Sciences Vice-President Prof. João AZEVEDO, São Paulo
- Prof. Klaus DRECHSLER (video contribution), Bavaria

● **Shandong Contributions (19:45, China Standard Time)**

- “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)**

- “Quo vadis Urban Air Mobility: An European perspective”, Dr. Kay PLÖTNER, Bavaria
- “Sustainable Aviation Challenges & Opportunities”, Mr. Maurílio Albanese NOVAES JÚNIOR, São Paulo
- “Demand modeling for traditional and emerging forms of air transportation“, Prof. Laurie GARROW, Georgia
- “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)**

- Prof. William Roberto WOLF, São Paulo and Dr. Peter HÜLSE, Bavaria

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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)

- RLS-Sciences Vice-President, Prof. Kodjo AGBOSSOU, Québec
- Dr. Sebastian BICKELHAUPT, Bavaria

● Shandong Contributions (19:45, China Standard Time)

- “Optimizing Enlarging Big Data to Predict and Prevent Disease“, Prof. Sijin LIU, Shandong
- “Federal Big Data Platform for Medical Sciences and its Tools“, Prof. Fuzhong XUE, Shandong

● Forward from Herrsching (20:25, China Standard Time)

- “AI based Medical Data Analysis – Research Project MC³“, Dr. Michael GIRETZLEHNER, Upper Austria
- “Methods in Digital Health“, Prof. Paulo Mazzoncini de AZEVEDO-MARQUES, São Paulo
- “International Models for Data Sharing in Digital Health“, Prof. WenZhan SONG, Georgia

● Session Conclusion and Next Steps (21:05, China Standard Time)

- Prof. Yves JOANETTE, Québec and Prof. Agma TRAINA, São Paulo with Dr. Sebastian BICKELHAUPT, Bavaria

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RLS-Sciences Joint Interdisciplinary Session

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Shandong and RLS-Sciences: Forward from Herrsching

● Opening Statement (19:30 China Standard Time)

- RLS-Sciences President, Dr. Sebastian GOERS, Upper Austria

● Session Summaries (19:35, China Standard Time)

- Energy Network, Dr. Reinhart SCHWAIBERGER, Bavaria
- Small Satellites, Dr. Alexander KLEINSCHRODT, Bavaria
- Global Aerospace Campus, Dr. Peter HÜLSE, Bavaria
- 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

- Renewable Energy, Dr. Can JI and Dr. Jing CHENG
- “Smallsat development activities in Shandong Province”, Prof. Mingxiang LI
- “Layout of Aerospace New Energy Business and a High Precision BMS Solution”, Dr. Weilong LIU
- “AI 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
 - Including **RLS-Sciences Updates**: Documentation, Newsletters and Special Editions, RLS-Sciences Library and Conference Proceedings, Ms. Fiona RUMOHR, Bavaria

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