



1ST INTERNATIONAL LUNAR SEARCH AND RESCUE CONFERENCE DETAILED PROGRAM

Thursday 13 October 2022

<p>19:00 (Beijing Time)</p> <p>07:00 (Washington D.C. Time)</p> <p>13:00 (Brussels Time)</p>	<p>Opening Session - Part 1</p> <p>Communications, Logistics, and Chairs Introduction</p> <p>Paul Kirkpatrick <i>Organizing Committee</i></p> <p>Chairs: Prof. WANG Ying <i>Director of International Business BIT</i></p> <p>Dr. Paul Wilde <i>IAASS President</i></p> <p>Host Organization and Co-Organizer Welcome Messages</p> <p>Prof. WANG Bo <i>Vice President of Beijing Institute of Technology (BIT)</i></p> <p>Dr. GUO Lugang <i>Vice President of Beijing Association for Science and Technology (BAST)</i></p> <p>Dr. Paul Wilde <i>President of the International Association for the Advancement of Space Safety (IAASS)</i></p> <p>Conference Introduction</p> <p>Lunar SAR Legal Aspects: Prof. LIU Hao <i>BIT-School of Global Governance</i></p> <p>Lunar SAR Technical Aspects: Tommaso Sgobba <i>IAASS Executive Director</i></p>	<p>Remote/ in-person</p>
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<p>20:15 (Beijing Time)</p> <p>08:15 (Washington D.C. Time)</p> <p>14:15 (Brussels Time)</p>	<p>Opening Session - Part 2</p> <p>Chairs: Prof. LIU Hao T. Sgobba</p> <p>Keynote Speakers: Dr. Mark Glissman <i>Chief of Air and Space Forces Space Safety – United States</i></p> <p>Lunar Exploration: An International Humanity's Endeavour Dr. Simonetta Di Pippo <i>Director Space Economy Evolution Lab</i> <i>SDA Bocconi University – Italy</i></p>	<p>Remote/ in-person</p>
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Coffee Break



<p>21:45 (Beijing Time)</p> <p>09:45 (Washington D.C. Time)</p> <p>15:45 (Brussels Time)</p>	<p>Session #1 - Part 1 International Search and Rescue Organizations and Lessons Learned</p> <p>Chairs: T. Sgobba F. Tronchetti</p> <p>Invited Speakers:</p> <p>The International Submarine Rescue Experience Andrea Molaschi <i>Head of International Submarine Escape and Rescue Liaison Office (ISMERLO), UK</i></p> <p>Search and Rescue Organizations in the Arctic and Lessons Learned Svetlana Kuznetsova <i>Researcher, Northern Arctic Federal University, Russian Federation</i></p>	<p>Remote/ in-person</p>
<p>Q&A (15 min.)</p>		
<p>23:00 (Beijing Time)</p> <p>11:00 (Washington D.C. Time)</p> <p>17:00 (Brussels Time)</p>	<p>End of 1st Day Live Sessions and release of On-Demand Presentations</p> <p><i>Note: On-demand presentations are pre-recorded video presentations of conference papers touching upon various related topics, and which the registered conference participants can access at any convenient time for them during the conference. The presentations will be uploaded too. Selected full papers will be published on the Journal of Space Safety Engineering.</i></p> <p>Applying UN Space Treaties to Search and Rescue of Crewed Lunar Station Missions Jiaying YU <i>The University of Hong Kong, Hong Kong S.A.R. (PRC)</i></p> <p>Space Rescue in the Context of Design for Crew Survival Tommaso Sgobba <i>IAASS, The Netherlands</i></p> <p>Crew Rescue and Lunar Missions Phases James Duffy <i>Blue Origin, United States</i></p> <p>Search and Rescue Agreement on the Moon Dr. Sanat Kaul <i>International Foundation for Aviation, Aerospace, and Drones, India</i></p> <p>Space Distress Communications Interoperability, Which Normative Model for the Artemis Accords? <i>Guillaume Loonis-Quélen^(1,4), Jean-Bruno Marciacq⁽²⁾, Benoît Le Goaziou^(3,4)</i> 1. Loonis-Quelen Avocat, France - 2. JBM Aerospace, Germany 3. Benoît Le Goaziou, France - 4. Gie Asterias Avocats, France.</p> <p>Interoperability as the Key to Unlock Space Safety Dharshun Sridharan <i>Piston Labs, Australia</i></p> <p>Technical and Policy Options to Facilitate Emergency Response in Proximity to Space Nuclear Systems in Cislunar Space Alex Gilbert <i>Zeno Power, United States of America</i></p>	<p>Web</p>



Study of Creation of Fire and Explosion Safety System for Spacecraft with Liquid Rocket Engines

Prof. Valery Trushlyakov, Dr. Vadim Yuditsev, Dr. Vladislav Urbansky, Omsk State Technical University, Russian Federation.

Space Safety at USAF/USSF

Dr. Mark Glissman
Air and Space Forces Space Safety (USA)

Lunar EVA Emergency Pressurization Shelter

Richard S. Whittle
Department of Aerospace Engineering, Texas A&M University.

The EXPLORE Machine Learning Data Challenge – Finding the Optimal Lunar Rover Traverse

G. Nodjoumi⁽¹⁾, J.E. Suarez Valencia⁽¹⁾, D. Le Corre^(2,3), U. Pedreira⁽⁴⁾, A.P. Rossi⁽¹⁾, A. Heward⁽⁵⁾, N.L.J. Cox⁽⁴⁾
1. Jacobs University Bremen, Bremen, Germany - 2. University of Kent, Kent, UK
4. ACRI-ST, CERGA, Grasse, France - 5. DFET, UK

Space Weather on the Moon

Prof. Mike Lockwood
University of Reading, United Kingdom

The Utility of Incapacitated Crewmember Ingress Devices for Lunar Surface Exploration

Dr. Robert Ocampo
Blue Origin, United States

Friday 14 October 2022

19:00 (Beijing Time)	Session #1 - Part 2 International Search and Rescue Organizations and Lessons Learned	Remote/ in-person
07:00 (Washington D.C. Time)	Chairs: R. Saade Paul Kirkpatrick	
13:00 (Brussels Time)	Invited Speakers: Rick Button <i>Chief Coordination Division, Search and Rescue U.S. Coast Guard, United States</i> Steven Lett <i>Head of International Cospas-Sarsat Programme, Canada</i>	

Q&A (15 min.)



<p>20:00 (Beijing Time)</p> <p>08:00 (Washington D.C. Time)</p> <p>14:00 (Brussels Time)</p>	<p>Session #2 Panel Session “Legal Aspects of Lunar SAR”</p> <p>Chair: Prof. LIU Hao co-chair Paul Stephen Dempsey</p> <p>Legal Panel Session topics:</p> <ul style="list-style-type: none"> - Legal challenges - Liability and insurance - Legal interoperability agreement <p>Panel Members:</p> <ul style="list-style-type: none"> - Prof. Kai-Uwe Schrogl - Prof. Tanja Masson-Zwaan - Prof. Steve Freeland - Prof. Fabio Tronchetti - Mr. Taro Kuusiholma 	<p>Remote/ in-person</p>
<p>Q&A (15 min.)</p>		
<p>21:40 (Beijing Time)</p> <p>09:40 (Washington D.C. Time)</p> <p>15:40 (Brussels Time)</p>	<p>Session #3 Panel Session “Technical Aspects of Lunar SAR”</p> <p>Chair: T. Sgobba co-chair Grant Cates</p> <p>Technical Panel Session topics:</p> <ul style="list-style-type: none"> - Moon surface hazards - Lunar SAR scenarios - Lunar SAR key capabilities - Technical interoperability <p>Panel Members:</p> <ul style="list-style-type: none"> - James Duffy - Alex Gilbert - Dr. Robert Ocampo - Prof. Mike Lockwood - Dharshun Sridharan - Richard Wittle 	<p>Remote/ in-person</p>
<p>23:00 (Beijing Time)</p> <p>11:00 (Washington D.C. Time)</p> <p>17:00 (Brussels Time)</p>	<p>End of Day</p>	



Saturday 15 October 2022

<p>19:00 (Beijing Time)</p> <p>07:00 (Washington D.C. Time)</p> <p>13:00 (Brussels Time)</p>	<p>Session #4 Moon Programs and Future Vision</p> <p>Chairs: P. Kirkpatrick Prof. XU Rui</p> <p>Invited Speakers:</p> <p>Moon Programs and Future Vision Massimo Sabbatini <i>ESA Erasmus Innovation Center Manager (Ret.)</i></p> <p>YANG Ruihong <i>Director, China Lunar Exploration Project Office</i></p>	<p>Remote/ in-person</p>
<p>Coffee Break</p>		
<p>20:00 (Beijing Time)</p> <p>08:00 (Washington D.C. Time)</p> <p>14:00 (Brussels Time)</p>	<p>Session #5 An International Organization for Lunar SAR Panel Session: “Which Lunar SAR organization?”</p> <p>Chairs: Tommaso Sgobba Prof. LIU Hao</p> <p>Panel Members:</p> <ul style="list-style-type: none"> - Cmdr. Rick Button - Dr. Mark Glissman - Mr. Niklas Hedman - Mr. Steven Lett - Prof. Tanja Masson-Zwaan - Cmdr. Jonathan Powis - Prof. Raafat George Saade - Prof. Fabio Tronchetti - Dr. Paul Wilde 	<p>Remote/ in-person</p>
<p>Q&A (15 min.)</p>		
<p>22:30 (Beijing Time)</p> <p>10:30 (Washington D.C. Time)</p> <p>16:30 (Brussels Time)</p>	<p>Concluding Remarks Dr. WANG Bo <i>BIT Vice President</i></p> <p>Dr. Paul Wilde, <i>IAASS President</i></p> <p>Conference Conclusions and Way Ahead Prof. LIU Hao Tommaso Sgobba</p>	<p>Remote/ in-person</p>