

## **Program Virtual Conference Commons in Space 2023 (for details sign into the conference website)**

### **Wednesday Nov 15, 2023**

Times are in Arizona time (UTC – 7 hours) (CET - 8 hours)

#### **6:00am. Should access to an unpolluted night sky be a human right?**

Chairs: Hannah Dalglish, University of Southampton, United Kingdom & Taylor Stone, University of Bonn, Germany

Panelists: Gina Maffey, Green Roots, The Netherlands, Christopher Barnes, University of Derby UK, Falk Parra Witte, Tairona Heritage Trust Columbia, Fionagh Thomson, Durham University UK

#### **7:00am. Speakers panel 1: Resource Governance and Geopolitics**

Moderator: Xiao-Shan Yap

##### **The Artemis Accords and the Global South- Can India lead the way?**

Aaditya Vikram Sharma, Vivekananda Institute of Professional Studies - Technical Campus (INDIA) and West Bengal National University of Juridical Sciences (INDIA)

##### **Transnationalization, Geopolitics and New Space: A Social Network Analysis of the Global Satellite Industry**

Florian Rabitz, Kaunas University of Technology, Lithuania, Inga Popovaite, Kaunas University of Technology, Lithuania, Vidas Vilcinskis, Kaunas University of Technology, Lithuania

##### **The Four Commons of Outer Space**

Dennis O'Brien, The Space Treaty Project, USA

#### **9:00am. Governing the space commons: insights from other fields**

Chair: Florian Rabitz, Kaunas University of Technology, Lithuania

Panelists: Duncan Currie, Deep Sea Conservation Coalition, Elsa Tsioumani, University of Trento, Italy, Scott Shackelford, Kelley School of Business, Indiana University.

#### **10:00am. Interrogating the Commons: Coloniality, Harm, and Alternative Models for Space Sustainability**

Chair: Erika Nesvold JustSpace Alliance (USA)

Panelists: AJ Link, JustSpace Alliance (USA), Howard University School of Law (USA); Savannah Mandel JustSpace Alliance (USA), Virginia Tech (USA); Hilding Neilson, JustSpace Alliance (USA), Memorial University of Newfoundland (Canada); Natalie Treviño JustSpace Alliance (USA), The Open University (UK)

## **Noon. Speakers Panel 2 Global Accessibility to Space**

Moderator: Akhil Rao

### **International Cooperation to Achieve SDGs as per UN Agenda 2030**

Sibsankar Palit LIFE-To & Beyond, India; Thiago S. Dias, Air Force University, Brazil; Rihab Ben Moussa, Faculty of Tunis El Manar, Tunisia

### **The Role of Space Data in Climate Change Mitigation**

Andrea Harrington, McGill University Institute of Air and Space Law, Canada

### **Interoperability: a critical piece of the puzzle to increasing access to Earth Observation data?**

Art Cotterell, The University of Adelaide, Australia

### **Accessibility to Space Infrastructures and Outer Space as Global Commons: Anthropological Insights from Kourou**

Karlijn Korpershoek, Jagiellonian University, Poland

## **1:00pm. Speakers Panel 3 History and Culture in Space Activities**

Moderator: Xiao-Shan Yap

### **Landscape values in abiotic space environments: the case of shadows on the Moon**

Alice Gorman, Flinders University, Australia

### **Secularizing the Unsecularizable: On History, Enchantment, and the Extraterrestrial Common**

Brad Tabas, ENSTA Bretagne, France

### **When Surveillance Fails. An Alternative Narrative for Near-Earth Space's Orbital Holding Capacity**

Luca Thanei, ETH Zurich, Switzerland

## **9:00pm. New approaches to sustainable lunar activity**

Chair: Alice Gorman, Flinders University Country: Australia

Panelists: Ian Christiansen Secure World Foundation USA; Xu Yu Chinese Foreign Ministry China; Irina Chernykh, RUDN University Russia

## Thursday November 16, 2023

Times are in Arizona time (UTC – 7 hours) (CET - 8 hours)

### 7:00am. Speakers Panel 4 Governance of Other Celestial Bodies

Moderator: Florian Rabitz

#### **Astro-mining: A Study on Resource Acquisition and Sustainability Balance Based on Shared Resource Governance and SES Framework**

Na Chen, Beijing Normal University School of Government, China

#### **Towards an Astrobiology Commons: Anticipatory Diplomacy in the Search for Extraterrestrial Life**

George Profitiliotis, TU Delft, The Netherlands

#### **Environmental Best Practices for Space Resources Activities**

Alex Gilbert, Colorado School of Mines, USA

#### **Ought we to privately own celestial bodies?**

Santiago Vrech, Utrecht University, The Netherlands

### 8:00am. Speakers Panel 5: Governing Earth Orbit Commons

Moderator: Akhil Rao

#### **Unlocking the Value of Space Debris: An Investigation on Multi-shell Source-Sink Physical-Economical Model and Space Debris Value Definition**

Di Wu, Massachusetts Institute of Technology, United States

#### **How does the current wave of informal institutions fit with the formal bedrock of multilateral treaties? The case of outer space governance.**

Pauline Pic, Université Laval, Canada

Jean-Frédéric Morin, Université Laval, Canada

#### **Space-Based Solar Power: Debris Risk and Regulations**

Majal Shiny Subbiah, Christ University, India

#### **Orbital Debris and Public Perceptions**

Patrice Kohl SUNY College of Environmental Science and Forestry, United States; Sergio Alvarez University of Central Florida, United States; Philip Metzger University of Central Florida, United States; Andy Long SUNY College of Environmental Science and Forestry, United States; Wändi Bruine de Bruin University of Southern California, United States; Brendan Byrne University of Central Florida, United States; Tarek Elgohary University of Central Florida, United States

### 11:00am. Passing the hot potato: Where to mine minerals for an energy transition?

Chairs: Marco Janssen; Arizona State University, USA, & Marty Anderies; Arizona State University, USA

Panelists: Elke Kellner University of Bern (Switzerland)/Arizona State University (USA); Ian Lange, Colorado School of Mines; USA; Catherine Blancard, Utrecht University, the Netherlands,

## **Noon. Speakers panel 6 Debating Sustainability**

Moderator: Marco Janssen

### **Towards a sustainable space sector for Aotearoa New Zealand**

Sarah Bickerton, University of Auckland; New Zealand, Cody Mankelow, University of Auckland; New Zealand, Priyanka Dhopade, University of Auckland; New Zealand,

### **The politics of earth-space sustainability: A preliminary typology based on global discourses**

Xiao-Shan Yap (1) EPFL, Swiss Federal Institute of Technology Lausanne, Switzerland; (2) Utrecht University, the Netherlands

### **De-naturing the moon: Poststructuralist discourse analysis of how recent academic literature represents lunar common-pool resources**

Timothy Pape, University of Nebraska-Lincoln, United States

### **Space sustainability through atmosphere pollution? De-orbiting, atmosphere-blindness and planetary environmental injustice**

Patrick Flamm, Peace Research Institute Frankfurt, Germany; Daniel Lambach Goethe University Frankfurt, Germany; Urs Schaefer-Rolffs Leibniz Institute of Atmospheric Physics at the University of Rostock (IAP), Germany; Claudia Stolle Leibniz Institute of Atmospheric Physics at the University of Rostock (IAP), Germany; Vitali Braun ESA/ESOC, Germany

## **2:00pm. Managing natural and cultural heritage values in off-Earth environments**

Chair: Alice Gorman, Flinders University, Australia

Panelists: Beth Laura O'Leary, New Mexico State University, USA; Justin Holcomb, University of Kansas, USA; Bryan Lintott Cambridge Heritage Research Centre, UK; Gai Jorayev University College London, UK

## **3:00pm. Write It Down! Poetry and Our Heritage of Space Exploration**

Chair: Midge Goldberg, United States

Panelists: Alice Gorman, Flinders University of South Australia; Yun Wang, CalTech, USA; Donna Kane, Canada, Jay Ruzesky, Vancouver Island University, Canada

## **Friday November 17**

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### **7:00am. Future-making 2030 and beyond: Implications to earth-space sustainability**

Chair Xiao-Shan Yap (1) EPFL, Swiss Federal Institute of Technology Lausanne; Switzerland (2) Utrecht University, The Netherlands

Panelists: Alessandro Rossi Alessandro, Istituto di Fisica Applicata Nello Carrara (IFAC CNR), Italy; Almudena Azcarate Ortega, United Nations Institute for Disarmament Research (UNIDIR), Switzerland; Jerome Barbier, Paris Peace Forum; Alexandre Vallet, International Telecommunication Union; Quentin Verspieren, European Space Agency

### **8:00am. Speakers panel 7: Earth-Space Interdependency: Resources, Imaginaries, and Governance**

Moderator: Marco Janssen

#### **Beyond Earth and Ocean: A Comparative Discourse Analysis of Space Mining and Deep-Sea Mining and their Implications for the Energy Transition**

Yaodan Qi, Utrecht University, Netherlands

#### **Diverging Paths: The Integration of Environmental Norms in the Regimes for Antarctica, the Deep Seabed and Outer Space**

Philippe Evoy, Université Laval (Canada) & Vrije Universiteit Amsterdam (The Netherlands)

#### **Unbound: Ethics, Law, Sustainability, and the New Space Race**

Chris Impey, University of Arizona, United States

#### **Imagining a Multiplanetary Future – how Elon Musk’s imaginaries are shaping discourses on earth-space sustainability**

Leon Wagenknecht, Utrecht University Netherlands, Xiao-Shan Yap, Utrecht University, Netherlands; Rakhyun E. Kim, Utrecht University, Netherlands

### **11:00am. Science Fiction and Space Economics**

Chair, Joffa Applegate, Arizona State University, USA

Panelists: Jason Barr, Rutgers University, USA; Marco Janssen, Arizona State University, USA; Erin Roberts, University of Texas Austin, USA; Dongwon Song, Howard Morhaim Literary Agency, USA.