

**DRAFT: 21 June 2024**

**INTERNATIONAL SEMINARS ON PLANETARY EMERGENCIES, 56<sup>th</sup> Session**

**Chairman: A. ZICHICHI; Cochairman: C. GALBIATI**

**8-14 August 2024**

**Thursday 8 August 2024**

**Arrivals**

**20.00 Conference Dinner**

**Friday 9 August 2024**

**9.30 PMP Meetings**

**20.00 Conference Dinner**

**Saturday 10 August 2024**

**9.30 Welcome and Introductory Remarks:**

- Fabrizio Zichichi (introducing Antonino Zichichi)
- Antonino Zichichi (via video)
- Government Officials

**10.30 Keynote Address:** Cristian Galbiati

**11.00 Coffee Break**

**11.30 Session 1: Managing international conflicts and arms control**

Session Chairman: William Barletta, *Chairman, Mitigation of Catastrophic Risks PMP*

11.30 Tariq Rauf: *The growing threat of nuclear weapons*

11:45 William Barletta: *New Nuclear Delivery Systems*

12:00 Robert Schock et al: *Risk Assessments and Nuclear Arms Control*

12:15 Karen Hallberg: *Conflict management and the Pugwash process*

12.30 Discussion

**13:30 Lunch**

**15.30 Session 2: Emerging/Re-emerging Infections and Neurological Diseases**

Session Chairman: Franco Maria Buonaguro, *Chairman Medicine and Biotechnology PMP*

15.30 Franco M. Buonaguro: *Long COVID Disaster*

15.45 Sofie Nyström: *Connecting the dots between virus amyloids and neurodegenerative diseases*

16:00 Bernardino Ghetti: *Near-atomic structure of brain amyloidoses in human aging and neurodegenerative diseases using cryogenic electron microscopy*

16:15 Emanuele Buratti: *Identifying fluid biomarkers for neurodegenerative diseases*

16:30 Gianluigi Zanusso: *The signs of neurodegeneration in olfactory neuroepithelium*

16.45 Rino Rappuoli: *Emerging and re-emerging pandemics preparedness*

17:00 Discussion

**18.00 Adjourn**

## **20.00 Conference Dinner**

### **Sunday 11 August 2024**

#### **9.30 Session 3: The power market and the energy transition**

Session Chairman: Carmine DiFiglio, *Chairman, Energy PMP*

9.30 Carmine DiFiglio: *Introduction, Energy Security and the Power Sector*

9.40 Peter Hartley: *Title TBD*

10.00 Alessandro Clerici: *Title TBD*

10.20 Ashutosh Shastri: *Title TBD*

10.40 Teresa A. Gorman: *Title TBD*

*(Presentation titles will be set after a 2 July Zoom call to determine how the several topics can be best distributed among the speakers.)*

11:00 Discussion

#### **11.45 Coffee Break**

#### **12.15 Session 4: Managing International Conflicts**

Session Chairman: William Barletta, *Chairman, Mitigation of Catastrophic Risks PMP*

12:15 Nichole Argo and Lydia Wilson: *Psychological pathways to international conflict*

12:35 Bilal Ayyub: *Modeling Complexity of Conflicts including Economic, Structural and Psychological Perspectives*

12:50 Francesca Giovannini: *Application to NATO, Russia and Ukraine*

13:05 Tariq Rauf: *Rapporteur's Report – Paths Forward in the Conflict in the Middle East*

13:15 Discussion

#### **14.00 Lunch**

#### **16.00 Session 5: Perspectives, Risks and Challenges of Cyber Security and AI**

Session Chairman: Axel Lehmann. *Chairman, Future of Cyber Security and AI PMP*

16.00 Axel Lehmann: *Introduction*

16:05 Hamadoun Toure: *“Current Status and associated Challenges of AI”*

16.17 Sun Kun Oh: *“Challenges to AI and its Global Position from an Asian Perspective”*

16.29 Arthur Miller: *“The Brave New World of Machines that Make Art, Create Prose and also Think”*

16.41 Pavan Duggal: *“Emerging Legal and Policy Trends impacting AI and Generative AI”*

16.53 Anna Pouliou: *“Immediate Privacy and Cyber Risks from AI and Countering Legislation”*

17.05 Alex Ntoko: *“Advanced Information Management System and Artificial Intelligence”*

17.17 Pier Paolo Menchetti: *“AI in Health”*

17.30 Discussion

#### **18.00 Adjourn**

## **20.00 Conference Dinner**

### **Monday 12 August 2024**

**9.30 Session 6: Global environmental threats to civil infrastructure**

Session Chairman: William Barletta, *Chairman, Mitigation of Catastrophic Risks PMP*

9:30 Jim Lambert & Bilal Ayyub: *Mitigation of Wildfires*

9:55 Robert Rosner: *Solar Geoengineering*

10:15 John Organek: *Solar Storm Disruptions of Power & Communications*

10:30 Anatoly Zaitsev: *Update on defense against cosmic threats*

10:45 Discussion

**11.30 Coffee Break**

**12.00 Session 7: Pollution and Water Crisis**

Session Chairman: Lorne Everett, *Chairman, Pollution and Water Crisis PMP*

12.00 Dan Stephens: *Groundwater Contamination: A History of Unintended Consequences*

12.20 Shammy Puri: *Scarcity Plus Global Water Pollution-A Ticking Time Bomb?*

12.40 Vijay Singh: *Water Security in the World's Most Populated Country, India*

13:00 Hugo Loaiciga: *Water and Energy Provision in a Changing World: Prospects for the 21st Century*

13.20 Discussion

**14.00 Lunch**

**16.00 Session 8: Biological and social developmental factors in the epidemic of metabolic and neuro-behavioral diseases**

Session Chairmen: Stefano Parmigiani & Fred vom Saal, *Chairmen, Environment and Health PMP*

16.00 Christopher Kassotis: *Environmental contaminants (and mixtures), developmental disruption, and neurometabolic health effects*

16.20 Thomas Zoeller: *Thyroid hormone insufficiency mediates important adverse effects of chemical pollution and nutritional deprivation on brain development.*

16.40 Jose Hernandez: *Prematurity and low birth weight as risk factors for obesity in early childhood and adulthood"*

16.55 Steven Andrew Haas: *The Wounds they Carry: The Long-Term Impacts of Childhood Exposure to War*

17.20 Discussion

**18.00 Adjourn**

**20.00 Conference Dinner**

**Tuesday 13 August 2024**

**10.00 Wrap Up Session** (press will be present)

10.00 Introduction, Fabrizio Zichichi, Wrap Up Session Moderator

10.10 PMP Chairs' Reports

11.00 Fabrizio Zichichi, *Plenary Discussion of PMP Priorities with PMP Chairs' Panel*

12.00 Cristian Galbiati, *Closing Remarks*

12.30 Fabrizio Zichichi, *Plenary Discussion – Synopsis: 2024 Seminars and Plans for 2025*

**13.30 Adjourn Plenary Sessions/Lunch**

**19.00 Conference Dinner**

**Wednesday 14 August 2024**

**Departures**