“Seamless prediction in 2023”

Key Questions

1. What scientific strategy is needed to cut across scales and enhance predictive skills?

2. What scientific challenges should be addressed as a matter of priority by 2023 across disciplinary boundaries?

3. What management strategies will lead to a reasonably open system that will facilitate downstream seamless products?

4. How will a seamless-oriented research approach for WMO support the development of the seamless DPFS by 2023?

Key-note Speakers

David Johnston is a Principal Scientist at GNS Science and Director of the Joint Centre for Disaster Research in the School of Psychology at Massey University, Wellington, New Zealand. His research focuses on human responses to volcano, tsunami, earthquake and weather warnings, crisis decision-making and the role of public education and participation in building community resilience and recovery. In 2016 he became Co-chair of World Meteorological Organization’s (WMO) High Impact Weather Project (HIWeather) Steering Group. This follows his role as the Chair of the Integrated Research on Disaster Risk Scientific Committee (IRDR) (2013-2015), a program co-sponsored by the International Council for Science (ICSU), the International Social Science Council (ISCC), and the United Nations International Strategy for Disaster reduction (UNISDR). He is the Editor of The Australasian Journal of Disaster and Trauma Studies; and was the founding Editor of the Journal of Applied Volcanology.

Ana Barros obtained a summa cum laude Diploma in Civil Engineering with majors in Structures and Hydraulics in 1985, and a M.Sc. degree in Ocean Engineering in 1988 with a thesis focusing on numerical modeling of sediment transport in estuaries and coastal regions. In 1990, She completed and M.Sc. degree in Environmental Science Engineering at the OHSU/OGI School of Science and Engineering. She earned a Ph.D. in Civil and Environmental Engineering from the University of Washington, Seattle in 1993. Her graduate studies were supported in part by fellowships from the Portuguese Foundation for Science and Technology (FCT/JNICT), and NASA’s Graduate Fellowship program. She is registered with the Portuguese Order of Professional Engineers since 1986. She is a Member of the ASCE, Senior Member of the IEEE, a Fellow of the American Meteorological Society, and a Fellow of the American Geophysical Union. She was the AMS Sigma-Xi Distinguished Lecturer 2014-2015.
Kevin Gurney is an Atmospheric Scientist, Ecologist and Policy expert currently working in the areas of carbon cycle science, climate science, and climate science policy at Arizona State University where he is Associate Professor in the School of Life Sciences, on the Graduate Faculty of the School of Sustainability, the School of Geographical Sciences and Urban Planning, and a Senior Sustainability Scientist in the Julie Wrigley Global Institute of Sustainability. He has degrees from UC Berkeley, MIT, and Colorado State University. His current research involves simulation of the global carbon cycle using the inverse approach, linkages between terrestrial carbon exchange and climate variability, and deforestation and carbon/climate feedbacks. He is a contributing author to the IPCC, an NSF CAREER award recipient, Sigma Xi Young Scientist recipient, and has published over 100 peer-reviewed scientific articles with multiple papers in Nature and Science and a book from MIT Press, Mending the Ozone Hole.

Gilbert Brunet obtained his PhD in meteorology at McGill University (1989). He is Director of the Meteorological Research Division (MRD), Environment and Climate Change Canada (ECCC) since 2006, including a secondment as Director Weather Science at the Met Office (2012-15), United Kingdom. He was awarded the 2010 Patterson Distinguished Service Medal for distinguished service to meteorology in Canada for his contributions in the field of meteorology. He was Chair of the Scientific Steering Committee of the World Weather Research Program (WWRP), World Meteorological Organization (WMO), 2007-14. In that role, he has contributed to several international strategic planning activities in weather and climate science.

Peter Li is working with the Aviation Weather Services Branch of the Hong Kong Observatory to oversee the Aviation Weather Forecast and Warning Services for the Hong Kong International Airport (HKIA) and the development and operation of regional aviation weather services. He is a Member of the World Meteorological Organization (WMO) World Weather Research Programme’s (WWRP) Working Group on Nowcasting and Mesoscale Weather Research and the Core Member of the Expert Team on Aviation, Science and Climate under the Commission of Aeronautical Meteorology. He is now taking lead of the WMO Aviation Research Demonstration Project (AvRDP) with a view of advancing the nowcasting science in aviation as well as demonstrating the benefits of the enhanced meteorological capabilities in ATM so as to meet the future ASBU requirements under the next generation of GANP in the next 15 years and beyond.

Amanda Lynch obtained her Ph.D. in Atmospheric Sciences from the University of Melbourne in 1993, with a focus on polar climate modeling. She also conducts research on climate policy, environmental governance, and the role of Indigenous knowledge in adaptation to global change. She is Chief Editor of the journal Weather, Climate and Society, Vice Chair of the World Climate Research Programme Joint Science Committee, a Fellow of the American Meteorological Society, and Fellow of the Australian Academy of Technological Sciences and Engineering. She won the Priestly Medal in 2008. Her favorite temperature is -20°C.

Xudong Liang has got his Masters degree in Data Assimilation and Numerical Modeling at Nanjing Institute of the Meteorology. He holds his Ph.D. at the Institute of Atmospheric Physics/Chinese Academy of Sciences. He has been a Senior Researcher at Shanghai Typhoon Institute, Associate Researcher at Shanghai Typhoon Institute, Research Assistant at City University of Hong Kong, Aug., and Assistant Researcher at Shanghai Typhoon Institute. He is currently conducting research as a Senior Researcher at State Key Laboratory of Severe Weather, Chinese Academy of Meteorological Sciences since last February.