PROGRAMME

International Symposium
"Global Collaboration on Data beyond Disciplines"

23 – 25 September 2020

Online Conference

Wednesday 23 September 2020
Opening Session (05:00-08:00 UTC)
Conveners: *Masaki Kanao, Yasuhiro Murayama, Takashi Watanabe, Rorie Edmunds

05:00–05:20 **Opening Addresses** (Chair: Masaki Kanao)

- **Asao Fujiyama** (Director-General, Joint Support-Center for Data Science Research (DS), ROIS) (10')
- **Masaki Kanao** (LOC Chair), outline of symposium & practical information (10')

05:20–06:35 **Keynote Talks**   (Chair: Takashi Watanabe)

Keynote 1: *Past, present and future of global data collaboration*
> **Mark A. Parsons** (Editor-in-Chief, Data Science Journal) (25')

Keynote 2: *Open Science for Asia and the Pacific*
> **Mazlan Othman** (Regional Office of Asia and Pacific, International Science Council) (25')

Keynote 3: *Do we all need to become data scientists?*
> **Jens Klump** (Mineral Resources, CSIRO in Australia) (25')

06:35–06:45 **Group Photo @ Zoom Screen & Coffee Break**

06:45–08:00 **10 Years Event of the International Programme Office of the World Data System (WDS-IPO)**
> (Chair: Yasuhiro Murayama; each talk is allocated for 5'-10')

- **Hideyuki Tokuda** (President, National Institute of Information and Communications Technology (NICT))
- **Ryoichi Fujii** (President, Research Organization of Information and Systems (ROIS))
- **Kazuhiko Takeuchi** (Vice President, Science Council of Japan)

- **Daya Reddy** (President, International Science Council)
- **Alexander de Sherbinin** (Chair, Scientific Committee of World Data System)
- **Elaine Faustman** (Vice Chair, Scientific Committee of World Data System)

- **Chieh-Chih Estelle Cheng** (Manager APAC Engagement, ORCID)
- **Rorie Edmunds** (International Program Office, World Data System)

- **Discussion**

Wednesday 23 September 2020
WDS Members' Forum 2020 (12:00-15:00 UTC)
Conveners: * Rorie Edmunds, WDS-SC, WDS-IPO, WDS-ITO

12:00–13:30 Scientific Session – Member Lightning Talks

(Chairs: Alex de Sherbinin, Rorie Edmunds)

- *Welcome & Introduction* (5')
  - **Alex de Sherbinin** (Chair, WDS-SC), **Rorie Edmunds** (Executive Director, WDS)
- *Panel Discussion 1: FAIR Data and Interoperability* (15')
  - **Marc Nyssen** (Moderator)
  - **Nick Thieberger** (PARADISEC)
  - **Wendy Gross** (World Data Service for Paleoclimatology)
  - **Michael Diepenbroek** (PANGEA – Data Publisher for Earth & Environmental Science)
- *Panel Discussion 2: Automation, Scalability, and Cloud Use* (20')
  - **Aminata Garba** (Moderator)
  - **Jeanne Behnke**(NASA-ESDIS Project)
  - **Martina Stockause** (DKRZ – WDC Climate)
  - **Jerry Carter** (Incorporated Research Institutions for Seismology)
  - **Andrii Shelestov** (Ukrainian Geospatial Data Center)
- *Panel Discussion 3: Sustainability: Making the case for domain repositories through value of information, operational use, & web services* (20')
  - **Robert Chen** (Moderator)
  - **Mamoru Ishii** (WDC – Ionosphere and Space Weather)
  - **Adam Shepherd** (Biological and Chemical Oceanography Data Management Office)
  - **Doug Schuster** (National Center for Atmospheric Research)
  - **Frederic Clette** (WDC – Sunspot Index and Long-term Solar Observations)
- *Breakout Discussions* (20')
  - **Karen Payne, David Castle, Loana Popescu** (Moderators)
- *Wrap-up of Scientific Session* (5')
  - **Alex de Sherbinin** (Chair, WDS-SC)

13:30–13:50 Coffee Break

13:50–15:00 Plenary Session – Community Consultation

(Chairs: Alex de Sherbinin, Rorie Edmunds)

- *Welcome & Introduction* (5')
  - **Alex de Sherbinin** (Chair, WDS-SC), **Rorie Edmunds** (Executive Director, WDS)
- *WDS-ITO Activities (+ Discussion)*
  - **Karen Payne** (Associate Director, WDS-ITO) (15')
- *Data Together: WDS & Member Involvement (+ Discussion)*
  - **Ingrid Dillo** (Vice Chair, WDS-SC) (15')
- *Candidate Membership & Mentoring (+ Discussion)*
  - **Wim Hugo** (Director of Strategy, WDS) (15')

- *Domain vs Generalist Repositories (+ Discussion)*
  - **Alex de Sherbinin** (Chair, WDS-SC) (15')
- *Wrap-up of Plenary Session*
  - **Alex de Sherbinin** (Chair, WDS-SC) (5')

Thursday 24 September 2020
Regional Activities on Data in the Asia & Oceania Area (01:00-03:30 UTC)
Conveners: *Toshihiko Iyemori, Mazlan Othman, Juanle Wang, Takashi Watanabe

01:00–03:30 **Regional Activities on Data in the A & O Area**

(Chairs: Mazlan Othman, Toshihiko Iyemori)

- *National Cross-Domain Activities on Research Data in Australia and Connections with International Activities (Invited)*
  - **Lesley Wyborn** (Australian National University) (20')
- *WDS-led Activities on Data in the Asia-Oceania Area*
  - **Takashi Watanabe** (International Program Office, World Data System) (15')
- *Open Science and its Policy towards Open Science Paradigm*
  - **Kazuhiro Hayashi** (National Institute of Science and Technology Policy) (15')

- *General-purpose research-data management service for international research collaboration (Invited)*
  - **Yusuke Komiyama** (National Institute of Informatics) (20')

  Coffee break (10')

- *Scientific Data Standard System Construction and its Application for Data Archiving in China*
  - **Juanle Wang** (Chinese Academy of Sciences) (15')
- *Collection, Archive and Sharing Space Weather information in NICT*
  - **Mamoru Ishii** (National Institute of Information and Communications Technology) (15')
- *Making historical data Re-useable: a case study of the challenges and success of Bangladesh Bureau of Statistic's historical data conversion project*
  - **Chandra Shekhar Roy** (Bangladesh Bureau of Statistics) (15')

- *Data Stewardship: Indian Perspective (Invited)*
  - **Devika Madalli** (Indian Statistical Institute) (20')

- **Discussion / Summary**

Thursday 24 September 2020
WDS – ORCID Strategic Workshop: Adoption of PIDs in Asia-Oceania (05:00-08:00 UTC)
Conveners: *Chieh-Chih Estelle Cheng, David Castle, Rorie Edmunds, Aminata Garba, Masao Mori, Karen Payne, Hideaki Takeda

05:00–06:20 **Part 1 – PIDs: A Vital Component of Global Research Data Infrastructure**
                                      (Chairs: Rorie Edmunds, Estelle Cheng)

- **Introduction by Chairs (5')**

- *Adopting Persistent Identifiers in Open Research Infrastructure: ORCID and beyond*
       Chieh-Chih Estelle Cheng (ORCID, APAC Engagement Manager) (20')
- *Japanese DOI RA, Japan Link Center (JaLC) and its collaboration with ORCID*
       Masashi Hara (Japan Science and Technology Agency) (20')
- *The IGSN Global Sample Number - A PID for Physical Objects*
       Jens Klump (Mineral Resources, CSIRO in Australia) (20')

- **Discussion & Wrap Up (15')**

06:20–06:40 **Coffee Break**

06:40–08:00 **Part 2 – Practical Use Cases: From National PID Systems to Sector Applications**
                                      (Chairs: Rorie Edmunds, Estelle Cheng)

- **Introduction by Chairs (5')**

- *The roles of PIDs in Scientific Data Management in China*
       Xiaoyan Hu (National Space Science Center, CAS, Space Science Big Data Technology Laboratory) (15')
- *Korea Research Data Management Platform and PID*
       Sa-kwang Song (Korea Institute of Science and Technology Information) (15')
- *DataCite Commons – A new service to explore the PID Graph*
       Martin Fenner (DataCite, Germany) (15')
- *The Power of PIDs at the Cambridge Crystallographic Data Centre*
       Ian Bruno (Cambridge Crystallographic Data Centre) (15')

- **Discussion & Wrap Up (15')**

Thursday 24 September 202
Sharing of the COVID-19 Data (10:00-16:00 UTC)
Conveners: *Elaine Faustman, Marc Nyssen, Masaki Kanao,
Tadahiko Maeda, Tomoya Baba, Mari Minowa

10:00–12:00 **Sharing of the COVID-19 Data - 1**
                                      (Chair: Tomoya Baba, Tadahiko Maeda)

Keynote 1: *Open Access and Data Sharing of Nucleotide Sequence Data*
       Masanori Arita (National Institute of Genetics) (25')
- *Time-series analysis of directional sequence changes in SARS-CoV-2 genomes and an unsupervised*

explainable AI for studying corona virus genomes
           Toshimichi Ikemura (Nagahama Institute of Bio-Science and technology) (20')
- *Susceptibility to COVID-19 infection: Insights from mathematical modelling*
           Ryosuke Omori (Research Center for Zoonosis Control, Hokkaido University) (20')
- *Wastewater-based epidemiology for COVID-19: Perspectives for environmental surveillance of SARS-CoV-2 in wastewater*
           Ryo Honda (Faculty of Geosciences and Civil Engineering, Kanazawa University) (20')
- *Spatial analysis of COVID-19 spread using compositionally-warped Gaussian process*
           Daisuke Murakami (Center for Data Assimilation Research and Applications, DS, ROIS) (20')

- **(Discussion)**

- **Coffee Break**

14:00–14:00 **Sharing of the COVID-19 Data - 2**
                           (Chair: Marc Nyssen, Mari Minowa)

Keynote 2: *Sharing data for a coordinated response during COVID-19 pandemic*
           Priyanka Pillai (Research Data Stewardship and Health Informatics) (25')
- *Sharing literature annotation regarding COVID-19 through PubAnnotation*
           Jin-Dong Kim (Database Center for Life Science, DS, ROIS) (20')
- *COVID-19 Data and Knowledge Hub*
           Liu Chuang (Global Change Research Data Publishing & Repository and GCdataPR -WDS) (20')
- *COVID-19 Data Sharing Initiative by WDCM and NMDC*
           Linhuan Wu (Institute of Microbiology, Chinese Academy of Sciences) (20')
- *Machine Learning based Peptide Therapeutics for Covid-19*
           Shailza Singh (National Center for Cell Science, India) (20')

- **(Discussion)**

- **Coffee Break**

14:00–16:00 **Sharing of the COVID-19 Data - 3**
                           (Chair: Elaine Faustman, Masaki Kanao)

Keynote 3: *Monitoring Sustainable Development Goals Amidst COVID-19*
        Through Big Data, Deep Learning and Interdisciplinarity
           Kassim S. Mwitondi (Sheffield Hallam University) (25')
- *The RDA Community Response to COVID-19*
           Mark Leggott (Research Data Canada) (20')
- *VODAN-in-a-box: a FAIR toolkit for improving reusability of COVID-related data*
           Luiz Olavo Bonino da Silva Santos (GO FAIR International Supporting
                                 and Coordination Office) (20')
- *Detailed Methodology and Application Guidelines for "The Global Covid-19 Index (GCI)"*
           Woody Ang Woo Teck (PEMANDU Associates, Malaysia) (20')
- *Leveraging open data towards containing COVID-19*
           Obwaya Mogire (South Eastern Kenya University) (20')

- **Discussion**

Friday 25 September 2020
Forum of Early Career Data Scientists in the Asia & Oceania Area (01:00-03:30 UTC)
Conveners: *Akira Kadokura, WDS ECR Network members,
Juanle Wang, Yoshimasa Tanaka, Takashi Watanabe

01:00–03:30 **Forum on Early Career Data Scientists in the A & O Area**
(Chairs: Jesse Xiao, Akira Kadokura)

- *Introduction for WDS ECR Network (Invited)*
  Lianchong Zhang, Jesse Xiao (The University of Hong Kong, WDS ECR Network) (15')
- *Information platform promoting global collaboration in microbial community (Invited)*
  Linhuan Wu (Institute of Microbiology, Chinese Academy of Sciences) (15')
- *Disaster Rapid Damage Mapping with Remote Sensing: benchmarking datasets and methods (Invited)*
  Junshi Xia (Institute of Physical and Chemical Research (RIKEN)) (15')
- *Introduction of FUXI Platform -Global Integrated Observation Data Management and Service System (Invited)*
  Yuanyuan Wang (Zhejiang University) (15')

- *Activities toward Open Data and Research Data Management at NIES/CGER (Invited)*
  Yoko Fukuda (National Institute for Environmental Studies) (15')
- *Standardization of biological sample information database (Invited)*
  Tazro Ohta (Database Center for Life Science, DS, ROIS) (15')
- *Official Micro Data, Causal Inference and Evidence-Based Policy Making (Invited)*
  Junchao Zhang (Center for Social Data Structuring, DS, ROIS) (15')
- *Recent Achievements of Deep Learning on Recognition of Modern Japanese Magazines (Invited)*
  Anh Duc Le (Center for Open Data in the Humanities, DS, ROIS) (15')
- *A data-scientific approach toward understanding of the goldfish genome and morphological diversity (Invited)*
  Tetsuo Kon (Nagahama Institute of Bioscience and Technology) (15')
- *Modelling the Suitability of Parcel Pick-up Lockers Using the Multi-Source Open Data (Invited)*
  Zilai Zheng (Graduate School of Life and Environmental Sciences, University of Tsukuba) (15')

- **Discussion**

Friday 25 September 2020
Promotion of Multi-Disciplinary Data Analysis,
Conclusive Adresses (05:00-08:30 UTC)
Conveners: *Takashi Watanabe, Asanobu Kitamoto, Masahito Nose, Ryuho Kataoka

05:00–06:30 **Promotion of Multi-Disciplinary Data Analysis - 1**
(Chair: Takashi Watanabe, Asanobu Kitamoto)

- *Introduction of the Session*
  Takashi Watanabe (International Program Office, World Data System) (5')
- *Developing Open-Source Data Analytics and Tools to Address Interdisciplinary Issues in Political Science, Human Geography, and Environmental Science*
  Joshua Brinks (iSciences, Limited Liability Company, Burlington) (20')

- *Implementation of OA/FAIR Principles in Six Years - A Case Study of Global Change Research Data Publishing & Repository*
  - **Liu Chuang** (Chinese Academy of Sciences) (20')
- *Data analysis and intelligent application in modern agricultural technology extension*
  - **Ying Deng** (National Engineering Research Center for Information Technology in Agriculture, China) (20')
- *A Comparison between Logistic Regression and Decision Tree Methods for Predicting the Pre-term Birth*
  - **Rakesh Kumar Saroj** (SRM University Sikkim-Gangtok, India) (20')

- **Coffee Break**

06:30–08:00 **Promotion of Multi-Disciplinary Data Analysis – 2**

(Chair: Takashi Watanabe, Asanobu Kitamoto)

- *Importance of a Multi-disciplinary Study of Peculiar Environmental and Socio-economic Movements in 18/19 Century*
  - **Takashi Watanabe** (International Program Office, World Data System) (20')
- *A unique website JCDP that aims to disseminate scientific information on historical climate data*
  - **Takehiko Mikami** (Tokyo Metropolitan University) (20')
- *Historical records of red auroras in Japan: Collaboration between literature and science*
  - **Ryuho Kataoka** (National Institute of Polar Research) (20')
- *Research Across Disciplinary Boundaries: Data Challenges and Solutions in the Environmental and Eco-social Sciences*
  - **Alison Specht** (the University of Queensland, Australia) (20')

- **Discussion**

08:00–08:30 **Conclusive Addresses** (Chair: Masaki Kanao; each talk is allocated for 5'-10')

- **Yasuhiro Murayama** (National Institute of Information and Communications Technology (NICT))
- **Myung-seok Choi** (Korea Institute of Science and Technology Information (KISTI))
- **Masaki Kanao** (LOC Chair), summary of symposium & conference proceeding

Extended Abstract only @ conference web-site

Extended Abstracts will be included in the conference "Programme and Abstracts" online booklet.

- *EA-1: Application of machine learning techniques to weather forecasting*
  - **V. Sakthivel Samy** (National Centre for Polar and Ocean Research, India)
- *EA-2: Analyzing the early 19th century's geomagnetic declination in Japanese archipelago from Tadataka Inoh's 67 volumes magnetic survey azimuth ledger Santou-Houi-Ki by Interdisciplinary study*
  - **Motohiro Tsujimoto** (no affiliation)
- *EA-3: Data and metadata sharing among Asian countries*
  - **Masaki Kanao** (Joint Support-Center for Data Science Research, ROIS)