Background and Scope:

One of the important objectives of the current Open Science movement is the creation of new research fields and technologies based on the vast quantities of data now being produced from almost all scientific domains. Adherence to the FAIR (Findable, Accessible, Interoperable, and Reusable) Principles for data have been recognized as a norm for data-oriented activities in this Open Science era, and is leading to efforts to develop Open Data infrastructure such as enhanced and integrated metadata catalogues, persistent identifiers (PIDs; e.g., Digital Object Identifiers) and metadata standards for research data management, certification of data repositories addressing long-term management and stewardship of quality-assessed data, and so on. Moreover, in many academic facilities (e.g., universities), the use of persistent identifiers for people, places, and other entities is becoming best practice in preservation and provision of data produced by their research activities.

Further efforts are still needed to resolve the various challenges that currently exist for scientific research data; in particular, the sharing and reuse of such data. Although the importance of multidisciplinary data integration has been widely advocated, data reuse by scientists either within or across disciplines is still not easy from the point of view of the FAIR Principles: for example, there may be difficulties in discovering and accessing the data or insufficient information on the data to enable easy analysis. Often additional information is also needed to assist understanding when sharing research data with the general public, including policymakers. To improve the situation, it is important to stimulate collaborations among scientists from various disciplines and to establish systems that facilitate the interactions between the users and providers of research data.

On the basis of the above, the Joint Support-Center for Data Science Research (DS) of the Research Organization of Information and Systems (ROIS) and the Committee of International Collaborations on Data Science of the Science Council of Japan (SCJ) are organizing a symposium to share information on current international research data activities addressing Open Science, data-centric science, and interdisciplinary data-driven science. A key step in making science open lies in improving data quality and transparency so that researchers can easily share their work, and this necessitates a robust and global-scale infrastructure. The symposium will be a remarkable opportunity to discuss the future development of such data-oriented infrastructure in the Open Science era, and thus ensure the long-term preservation and equitable provision of quality-assessed research data. The World Data System (WDS) of the International Science Council (ISC) and its partner organization Open Researcher and Contributor ID (ORCID) are leading global initiatives that can galvanize the community to find solutions to these data-related issues, and at the same time work with the community to improve data discoverability and interoperability for effective data reuse.
The goal of this symposium is to build consensus on various aspects of research data management by all stakeholders in alignment with Open Research policies and initiatives. It will explore new paths for activities significant in promoting interdisciplinary and collaborative research and data reuse under different scientific disciplines based on evidence and feedback from data communities. Such global data activities are expected to be strengthened by the endeavours and facilities provided by DS, ROIS.

Session Themes:

Potential session topics proposed for the symposium are:

- **Opening Session**: Opening Addresses, Keynote Talks, 10 Years Event of the International Programme Office of the World Data System (WDS-IPO).
  
  Conveners: *Masaki Kanao, Yasuhiro Murayama, Takashi Watanabe, Rorie Edmunds

- **WDS Members’ Forum 2020**: This WDS-led session is an interim, online version of the biennial WDS Members’ Forum (also known as ‘Data Repositories Day’), which has been postponed until 2021 such that it aligns with International Data Week. The session will be split into two parts:
  
  - The first part will be a Scientific Session consisting of report backs from the WDS membership on topics of interest and importance to the data repository community. All WDS Members will have the opportunity to showcase the visions and foci of their organizations for the coming five years through a series of lightning talks—either in pre-recorded videos or live—to facilitate discussions on opportunities created, challenges faced, and areas in which WDS can assist.
  - The second part will be a Plenary Session that provides a formal mechanism for the WDS Scientific Committee to consult with the community on issues of relevance to data repositories. It will share information on the current and prospective WDS activities, and ask for feedback and buy-in from the WDS membership and beyond.

  This virtual event is open to both WDS Members and general participants having an interest in the endeavours of WDS—those from outside of the WDS family will be very much welcomed. Since this meeting incorporates the biennial WDS business meeting, Representatives of WDS Member Organizations—in particular, those of WDS Regular and Network Members—are expected to participate.

  Conveners: *Rorie Edmunds, WDS-SC, WDS-IPO, WDS-ITO

- **Regional Activities on Data in the Asia & Oceania Area**: Sharing information on data-oriented collaborations on data in the Asia-Oceania area, e.g. plans of collaborating platforms have been going on in Australia and Malaysia and discussions in the series of WDS Asia and Oceania Conferences, etc. Principal Organizers are WDS and Regional Office of Asia and Pacific (ROAP).

  Conveners: *Toshihiko Iyemori, Mazlan Othman, Juanle Wang, Takashi Watanabe

- **WDS-ORCID Strategic Workshop: Adoption of PIDs in Asia–Oceania**: This jointly hosted session by ORCID (Open Researcher and Contributor ID) and the World Data System of the International Science Council (WDS) will introduce to the Asia–Oceania community Persistent Identifiers (PIDs) from both global and national perspectives, and their importance as a part of global open research infrastructure. It will also (1)
raise awareness about PIDs and their use across different scientific disciplines; (2) explore practical use cases of PIDs by national data systems and data repositories, especially within the Asia–Oceania context; and (3) showcase PID standards/best practices, as well as identify the resulting opportunities and benefits.

Convener: *Chieh-Chih Estelle Cheng, David Castle, Rorie Edmunds, Aminata Garba, Masao Mori, Karen Payne, Hideaki Takeda

➢ **Sharing of the COVID-19 Data**: Sharing information on data involving COVID-19 pandemics for all related branch of disciplines, including social, genome and biological aspects. As this session focus on international interest involving the pandemics, all related topics on COVID-19 data issues are welcome.

Convener: *Elaine Faustman, Marc Nyssen, Masaki Kanao, Tadahiko Maeda, Tomoya Baba, Mari Minowa

➢ **Forum of Early Career Data Scientists in the Asia & Oceania Area**: A forum of young-generation data scientists in the Asia-Oceania area to identify current problems and future plans. This part will be led by the WDS ECR Network.

Convener: *Akira Kadokura, WDS ECR Network members, Juanle Wang, Yoshimasa Tanaka, Takashi Watanabe

➢ **Promotion of Multi-Disciplinary Data Analysis**: Presentations on research projects based on multi-, and/or inter-disciplinary data use and data-led innovation of technology. Themes of space-weather data analyses are also included.

Convener: *Takashi Watanabe, Asanobu Kitamoto, Masahito Nose, Ryuho Kataoka

**Keynote Speakers:**

Mark A. Parsons (Editor-in-Chief, Data Science Journal)
Mazlan Othman (Regional Office of Asia and Pacific, International Science Council)
Jens Klump (Mineral Resources, CSIRO in Australia)
Lesley Wyborn (Australian National University)
Yusuke Komiyama (National Institute of Informatics)
Devika Madalli (Indian Statistical Institute)
Masanori Arita (National Institute of Genetics)
Priyanka Pillai (Research Data Stewardship and Health Informatics)
Kassim S. Mwitondi (Sheffield Hallam University)
Conference Programme:

<table>
<thead>
<tr>
<th>Dates</th>
<th>Time-slot 1</th>
<th>Time-slot 2</th>
<th>Time-slot 3</th>
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| 23 SEP (WED) | Opening Addresses, Key-note Talks, 10 Years Event of WDS-IPO  
(05:00-08:00 UTC)  
(14:00-17:00 JST) | WDS Members’ Forum 2020  
(12:00-15:00 UTC)  
(21:00-24:00 JST) |
| 24 SEP (THU) | Regional Activities on Data in the Asia-Oceania Area  
(01:00-03:30 UTC)  
(10:00-12:30 JST) | WDS-ORCID Strategic Workshop  
(05:00-08:00 UTC)  
(14:00-17:00 JST) | Sharing of the COVID-19 Data  
(10:00-16:00 UTC)  
(19:00-25:00 JST) |
| 25 SEP (FRI) | Forum of Early Career Data Scientists in the Asia-Oceania Area  
(01:00-03:30 UTC)  
(10:00-12:30 JST) | Promotion of Multi-Disciplinary Data Analysis Conclusive Addresses  
(05:00-08:30 UTC)  
(14:00-17:30 JST) |                                                                                     |

Detail Programme for all seven sessions is available from here;

**Programme & Session detail:** DSWS-2020_Programme & Session detail.pdf

Presentations:

**Online Presentations:**
General presenters are principally allocated 20 minutes including questions and discussion time.
Keynote speakers are principally allocated 30 minutes including questions and discussion time.
Several sessions prepare “lightning talk” presentations for few minutes, depending on the session content.
There is no poster presentation in this conference, therefore, those who want to make poster presentation could submit the poster content into the Extended Abstract.

All presentations will be made via the online Meeting Application (Zoom). Detail of the link information on the Zoom meeting room for all sessions is available by reply mail when you registered from the Pre-Registration Form "Pre-conference registration form".

Zoom meeting room:

Audio and Video control:
On entering the Zoom meeting room for each session, all delegates will be muted, and they should turn their video mode to "OFF". While, delegates can change these settings, it is advised that they stay muted and keep their video in the OFF mode throughout the time they are listening to the presentations to avoid causing disturbance and save bandwidth. Presenters should turn on the audio and video modes only when it is their turn to present. The buttons to turn on the audio and video mode will typically be at the bottom left corner of your screen; but muting and unmuting can also be done by clicking on the dots at the top right corner of your image. Muting and unmuting can also be done via your audio headset if you are using one.

Asking questions and discussions:
During question time and discussions, delegates should only turn "ON" the "microphone" (unmute themselves), when it is clear they have been given an opportunity to talk by the session chairs. This can happen in different ways – for example, it could be a quick question to be raised in the middle of the presentation or it may follow the directions of the session chairs. Delegates can raise their hand electronically. You can raise your hand by clicking on the icon labelled "Participants" at the bottom of your screen and then click the button "Raise Hand." You can also use the “Chat Room”, at the bottom of your screen, to send text messages to everyone or to an individual participant. The chatroom will be monitored by the conveners of the session.

Sharing Screen:
Presenters will be expected to share their screens with the rest of the audience. Sharing your screen is a straightforward process. Simply select "Share Screen" at the bottom of your screen, which will display various options for you to share. You will typically want to share your Desktop, as that is what you will be looking at. Once you have done so, select your Power Point slides or any other application you may wish to share and click "Share" at the bottom right corner. You can end screen sharing by selecting the relevant button at the top of your screen. If sharing external content with audio or video, such as YouTube clips, make sure you check the box "Share Computer Sound" at the bottom left corner of your screen.

Full Screen Mode:
Please note that you might not be able to see some of the options if you are in Full Screen mode. You can use the Escape key to leave the mode and use the double arrow sign, at the top right corner of your screen to enter full screen mode.

For those who are not familiar with screen sharing, we advise that they send their presentation files to the session conveners prior to the conference. Otherwise, you may send your presentation movie file to the conveners instead of an actual oral presentation.
**Video recording:**
All the sessions are planned to be recorded into the Zoom cloud. After the symposium has been completed, delegates can watch the session videos using the link information that will be provided by the Local Organizing Committee (LOC). The video watching period is set to be terminated by the end of October 2020.

Please feel free to contact the LOC and/or the session conveners, if you have any questions or issues you would like to raise.

**Abstract submission:**
All presenters are required to prepare an Extended Abstract to be included in the conference "Programme and Abstracts" booklet. The booklet will be published on the conference website.

The following doc.file contains a set of guidelines for preparing an Extended Abstract submission. Guidance is given on layout, text formatting, figures/tables, and references to ensure that all submissions are clear and consistent. The template is presented exactly as your extended abstract should appear, and it is highly advised to use it to prepare your submission in Word format. It is noticed that the manuscript should not exceed two pages in length, and should fit within the margins given in this template.

**Abstract Format:** Guidelines for Extended Abstracts - dsws.2020.doc (please download from conference website)

All the manuscript file(s) for Extended Abstracts should be emailed to [dsws2020.admn (at) gmail.com] by 31 August 2020.

Each submission will be given a light review by a member of the LOC or AC (see below) to confirm the typesetting and formatting adhere to the template, as well as the suitability of the presentation for inclusion in the programme.

**Registration:**
Pre-conference registration and presentation submission can be made from here. No registration fee is required to attend the conference.

"Pre-conference registration form"

Detail Zoom meeting information for all sessions will be sent by reply mail when you registered.

For the participants who are staying in places/countries where the above Google Form cannot be accessed for any reasons, please use the "Offline pre-registration form (xls.file) ". The "Offline pre-registration form" should be emailed to [dsws2020.admn (at) gmail.com] prior to the conference.

**Social Events (provisional):**
The organizers are planning the following social events in conjunction with the symposium.

- **10-Year Anniversary Event for the International Programme Office of the World Data System** (23 September, 0500-0800 UTC). This will take place by online virtual meeting by Zoom.
Local Organizing Committee (LOC): (* Chair)

Tomoya Baba (Data Science Promotion Section, DS, ROIS)
Akira Kadokura (Polar Environment Data Science Center, DS, ROIS)
*Masaki Kanao (Polar Environment Data Science Center, DS, ROIS)
Mari Minowa (Data Science Promotion Section, DS, ROIS)
Yasuhiro Murayama (National Institute of Information and Communications Technology)
Koji Nishimura (Polar Environment Data Science Center, DS, ROIS)
Akihiko Nomizu (Data Science Promotion Section, DS, ROIS)
Masahito Nose (Nagoya University)
Hideaki Takeda (National Institute of Informatics, ROIS)
Yoshimasa Tanaka (Polar Environment Data Science Center, DS, ROIS)
Hironori Yabuki (Polar Environment Data Science Center, DS, ROIS)
Takashi Watanabe (WDS-IPO)

International Advisory Committee (AC): (* Chair)

Phillippa Bricher (Australian Antarctic Division)
Taco De Bruin (Royal Netherlands Institute for Sea Research, Netherland)
Chieh-Chih Estelle Cheng (ORCID)
Shannon Christoffersen (University of Calgary, Canada)
Alexander de Sherbinin (NASA SEDAC; WDS-SC)
Rorie Edmunds (WDS-IPO)
Hiroyuki Enomoto (National Institute of Polar Research, ROIS)
Elaine Faustman (University of Washington; WDS-SC)
*Asao Fujiyama (Joint Support-Center for Data Science Research, ROIS)
Susumu Goto (Database Center for Life Science, DS, ROIS)
Yuko Harayama (ORCID Board Researcher Member)
Kazuhito Hayashi (National Institute of Science and Technology Policy)
Heidi J. Imker (Illinois University, USA)
Toshihiko Iyemori (Kyoto University; International Union of Geodesy and Geophysics; WDS-SC)
Ryuho Kataoka (National Institute of Polar Research, ROIS)
Asanobu Kitamoto (Center for Open Data in the Humanities, DS, ROIS)
Jens Klump (Mineral Resources, CSIRO in Australia)
Yuji Kohara (Database Center for Life Science, DS, ROIS)
Tadahiko Maeda (Center for Social Data Structuring, DS, ROIS)
Masao Mori (Tokyo Institute of Technology)
Hideki Noguchi (Center for Genome Informatics, DS, ROIS)
Tsuneo Odate (National Institute of Polar Research, ROIS)
Mazlan Othman (Regional Office of Asia and Pacific, International Science Council)
Mark Parsons (Rensselaer Polytechnic Institute, USA)
Peter Pulsifer (University of Colorado, USA)
Seiji Tsuboi (Japan Agency for Marine-Earth Science and Technology)
Genta Ueno (Center for Data Assimilation Research and Applications, DS, ROIS)
Juanle Wang (China Academy of Science; WDS-SC)
**Organized by:**

Joint Support-Center for Data Science Research (DS), Research Organization of Information and Systems (ROIS)
Committee of International Collaborations on Data Science, Science Council of Japan (SCJ)

**Supported by:**

National Institute of Information and Communications Technology (NICT)
Research Organization of Information and Systems (ROIS)
World Data System (WDS), International Science Council (ISC)
Open Researcher and Contributor ID (ORCID)
Science Council of Japan (SCJ)

**Workshop Website:**

[https://ds.rois.ac.jp/article/dsws_2020/](https://ds.rois.ac.jp/article/dsws_2020/)

**Important Dates:**

- Registration & Abstract submission open: 01 April 2020
- Presentation submission deadline: 15 August 2020
- Extended Abstract submission deadline: 31 August 2020
- Programme booklet online: 15 September 2020
- Registration deadline: 23 September 2020
- Symposium: 23–25 September 2020

**Contact Address:**

dsws.loc-2020 (at) nipr.ac.jp