

極域データの国際連携 と学術データベース



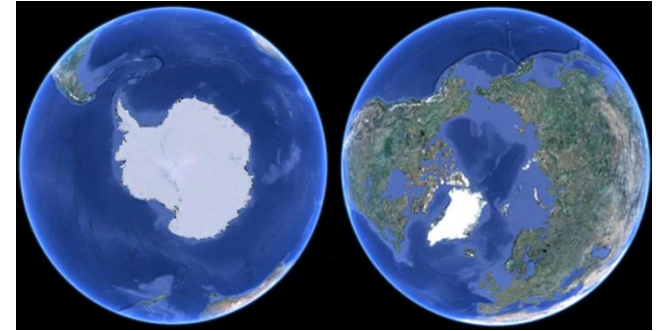
金尾 政紀

極域環境データサイエンスセンター



NiPR
National Institute of Polar Research

Polar Environmental Data Science Center (PEDSC) DS/NIPR-ROIS

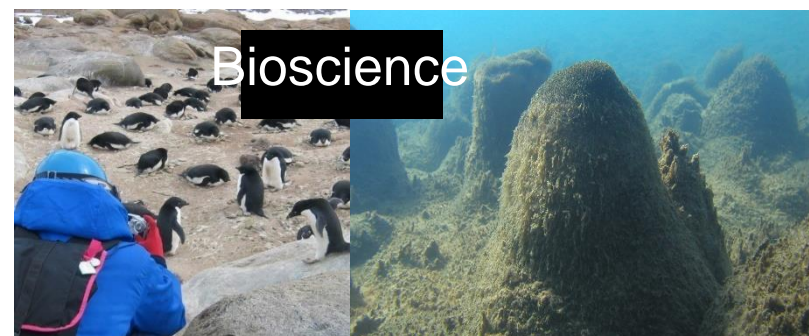
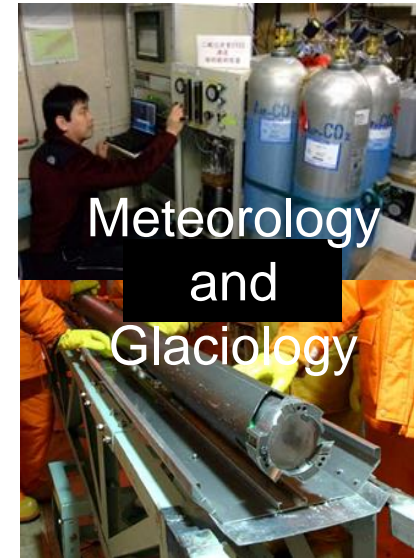


Collaboration
Open Data

Data Science

Network

Database



NIPR

Observation and Research activity
in Arctic and Antarctic regions

DS/ROIS

Polar Environment Data Science Center

Digital data

- Space and Upper Atmospheric Sciences Group
PANSY, EISCAT, aurora, magne, ULF, VLF, CNA
- Meteorology and Glaciology Group
CO₂, CH₄, aerosole, meteorological satellite
- Geoscience Group: seismology, gravity, VLBI
- Bioscience Group: marine biology, genome data

Sample data

- Ice core
- Meteorite
- Rock
- Greenhouse effect gas
- Biodiversity

Data Base System

- Science Data Base
- ADS (Arctic Data archive System)
- IUGONET (Inter-university Upper atmosphere Global Observation NETwork)
- Antarctic GIS system

Collaboration with national and international communities

Data Science, Collaborative research

Data Publication (Polar Data Journal)

Integrated
Database

External Community

- University, College
- Research Institution
- Company
- Public

- ArCS
- GRENE
- JCAR
- IASC
- SIOS

- SCAR/ICSU
- WDS/ICSU
- CODATA/ICSU
- GCMD/NASA

International Workshop on Data Science - Present & Future of Open Data & Open Science -

12 – 15 November 2018

Mishima Citizens Cultural Hall & Joint Support-Center for Data Science Research,
Mishima, Shizuoka, Japan

https://ds.rois.ac.jp/article/dsws_2018/

Session Themes :

- ✓ International data activity
- ✓ National data activity
- ✓ Current status of data science
- ✓ Current status of Inter-disciplinary science
- ✓ Industry-academia collaboration, education, capability building
- ✓ Legacy data, historical data, future on data science
- ✓ **120 participants including 20 overseas.**



学際データ関連の国際シンポジウム開催



SCADM (南極データマネジメント委員会)

- Standing Committee on Antarctic Data Management -



Scientific Committee on Antarctic Research
(SCAR / ICSU->ISC)

HOME ABOUT US SCIENCE POLICY PRODUCTS

PRODUCTS MENU

STANDING COMMITTEE ON ANTARCTIC DATA
MANAGEMENT (SCADM)



Resources

Data

JCADM

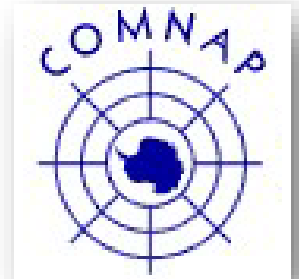
Joint Committee on Antarctic Data Management

(南極データ管理合同委員会)

"Scientific observations and results from Antarctica shall be exchanged and made freely available." (Antarctic Treaty , section III.1.c)



SCAR/COMNAPが1997年に設置



- 各国のデータマネージメント推進への協力(データポリシー、メタデータ提出)
- (主に)メタデータの管理
- データの所在についての情報提供
- SCAR/COMNAPへの報告、SCAR関連のSSG,WGとの連絡調整
- IPYにおけるデータマネージメント



南極科学委員会 (SCAR) に関する データのインフラストラクチャー

Antarctic Master Directory (AMD) / GCMD / NASA
南極マスターディレクトリー



registering metadata



A user can search a metadata catalogue. Data might be linked ??

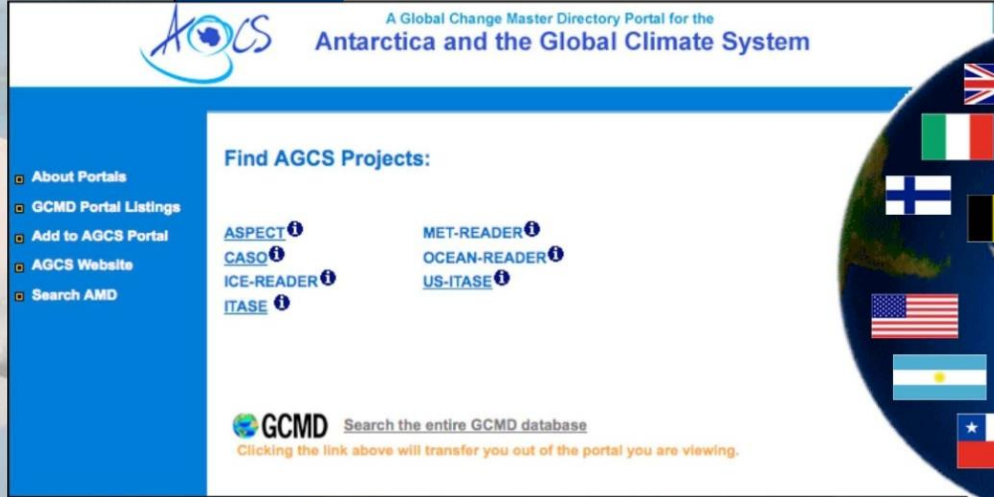
Antarctic Data Management System (ADMS)
= AMD + NADCs

National Antarctic Data Centers (NADC)
各国のデータセンター

GCMD; SCAR related portals

A Global Change Master Directory Portal

Customized NADC/SCAR Portals



AMD_JP+Arctic_JP; N=300

Providing DIFs to GCMD by using WAF (web accessible folder) inside NIPR metadata portal

南極マスターディレクトリー(AMD)
/ 汎地球変動マスターディレクトリー
(GCMD)/アメリカ航空宇宙(NASA)



[About NIPR](#)

[NIPR Research](#)

[Data Base](#)

[Contact](#)

Home > Data Base

NIPR関連データへのGateway

Data Base

[Space and Upper Atmospheric Sciences](#)

[Meteorology and Glaciology](#)

[Geoscience](#)

[Bioscience](#)

[Governmental Institutions](#)



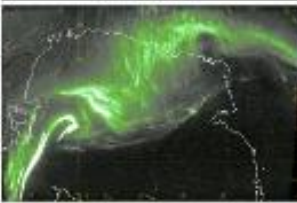
[Project](#)

[Monitoring](#)

[IPY](#)

[Arctic](#)

[Umitakamaru](#)



[Martian Meteorite](#)

[Eucrite from Vests](#)

[Carbonaceous Chondrite](#)

[Lunar Meteorite](#)

Data Base

- [Polar Data Center](#)
- [Ice Core Research Center](#)
- [Science Data Base](#)
- [Data Center for Aurora in NIPR](#)
- [EISCAT database in NIPR](#)
- [Dome Fuji Ice Core](#)
- [Collection of rocks and minerals](#)
- [Antarctic Meteorite Research Center](#)
- [Biological Specimen Archive](#)

極域の学術(メタ)データベース

- ◆ 南極観測事業(JARE)をはじめ、(北極を含む)両極域での調査・研究活動により取得された科学的データのメタ情報を収集・公開
 - IGY(1957-58)以後の長期間に渡るモニタリング観測
 - 短期間に集中的に行うプロジェクト研究
 - 極地研(研究分野別) + 定常官庁
- ◆ 文字情報・数値形式の所在情報(メタデータ)として、**一括して集積**
- ◆ 専用のポータルサーバ <http://scidbase.nipr.ac.jp/>
- ◆ NASAの南極マスターディレクトリー(**Antarctic Master Directory**)等とも連携



NIPR Metadata Portal

学術メタデータベース

Top Page;

<http://scidbase.nipr.ac.jp/>

NIPR_MetaDB; N=380

Both the English &
Japanese pages

120,000 access from
2011. December

← → http://scidbase.nipr.ac.jp/?ml_lang=en

NIPR DATA BASE - メタ...

National Institute of Polar Research Science Database

日本語 English

Menu

- Home
- About Polar Meta Database
- Science Category
 - Space and Upper Atmospheric Sciences
 - Meteorology and Glaciology
 - Geoscience
 - Bioscience
 - Governmental Institutions
- Data Policy
- User's Manual
- Polar Information Commons
- IPY Data Management
- Related Links
- Photo Gallery
- Contact

Login

- Login
- Register now!
- Lost Password?

Search

Options

Counter

Total : **5666**

NIPR
National Institute of Polar Research
Research Organization of Information and Systems
新領域融合研究センター
Shared-creating, Research-Integration Center

meta data list

Space and Upper Atmospheric Sciences	Meteorology and Glaciology	Geoscience	Bioscience	Governmental Institutions

New Meta Data

Image	Date	Title
	2012/6/1 11:27	Ocean color remote sensing data
	2012/6/1 11:23	Polar plant biodiversity database
	2012/6/1 10:54	Database of animal specimens from polar regions
No image	2012/6/1 10:51	Plankton Samplings on Board the "Fui" in 1980-1983
No image	2012/6/1 10:41	Pigment Content and Salinity of Sea Ice Cores collected near Showa Station, Antarctica in 1983/84
No image	2012/6/1 10:38	Chlorophyll concentrations and environmental parameters recorded with a moored buoy system
No image	2012/5/30 16:02	Chlorophyll concentrations and environmental parameters recorded with a moored buoy system
No image	2012/5/30 15:57	Oceanographic and Marine Biological data near Showa Station
No image	2012/5/30 15:51	Whale sighting efficiency of the crew on board ocean research vessels in BIOMASS/FIBEX
No image	2012/5/30 15:10	Zooplankton Data at Showa Station

Hot News !

- User Manual was renewed. (2nd version)(2012-04-18 10:30:51)
- Dr. Mustapha Mokrane, Science and Information Technology of ICSU visited NIPR.(2012-02-09 18:12:58)
- 2012 JpGU; Union Session (U-01) "Toward a New Framework of Global Data Activity"(2012-01-27 15:39:01)
- The "Access Counter " began at the metaDB portal. (2011-12-02 16:51:29)
- IPY Data Management page was created(2011-11-21 12:07:17)
- Standing Committee on Antarctic Data Management meeting (SCADM-15)(2011-11-07 17:37:39)
- The first ICSU WDS Conference - Global Data for Global Science - was held(2011-11-07 17:21:01)
- Introduction Lecture for "Metadata Portal Server" was held(2011-07-28 17:48:21)
- about user password(2011-07-01 09:26:28)
- The "Polar Information Commons: PIC" page was opened.(2011-06-29 14:54:09)

Related Databases

- Polar Data Center
- NIPR world data center for Aurora
- EISCAT Japan
- THE PENGUINNESS BOOK ANIMAL SPECIMENS DATABASE
- Antarctic Meteorite Database
- Polar Sets
- NIPR
- POLAR YEAR

PIC Norms

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None expects that users will follow the [Polar Information Commons Ethics and Norms of Data Sharing](#).

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Flow Chart of Data Publication on Polar Science

データ共有(相互利用)の促進

Science Metadata Base (English & Japanese)

<http://scidbase.nipr.ac.jp/>

National Institute of Polar Research
Science Database

Welcome admin

日本語 English

meta data list

Date	Time	Title
2011/3/7	12:06	EISCAT radar
2011/3/4	18:36	Teleseismic digital waveform records
2011/3/4	14:11	Teleseismic digital waveform records
2011/3/4	7:51	All-sky Imager Observation at South Pole Station
2011/3/4	7:46	Monitoring of marine pollution
2011/3/4	7:45	Antarctic region topographical map
2011/3/4	7:43	Fluorescence survey of exposed rock area
2011/3/4	7:41	Ultraviolet limits solar radiation observation classified by wave length
2011/3/4	7:40	Whale sighting efficiency of the crew on board ocean research vessels in BIOMASS/FIREX
2011/3/4	7:35	Quarterly fossil information near the Syowa Station

HOT news !

- Cherry Blossoms in Meppen (2011-03-04 11:52:40)
- The plain tree in Meppen (2011-03-04 11:52:12)
- (2011-03-04 11:52:47)

NIPR_MetaDB; N=380



Antarctic Master Directory / GCMD



Japanese Antarctic Portal (AMD_JP)



AMD_JP+Arctic_JP; N=300



Japanese Arctic Portal (Arctic_JP)



IPY Portal in GCMD

IPY_JP; N=250

SC-ADM

Standing Committee on Antarctic Data Management / SCAR

International Polar Year Data and Information Service

IPY Data and Information Service / IPY-DIS

PIC_JP; N=20

Polar Information Commons / CODATA

World Data System - CODATA / ICSU

International Data Management Organization / Committee

Science Database in Polar Data Center / NIPR

NASA / GCMD / Antarctic Master Directory

Exchange of Data & Information

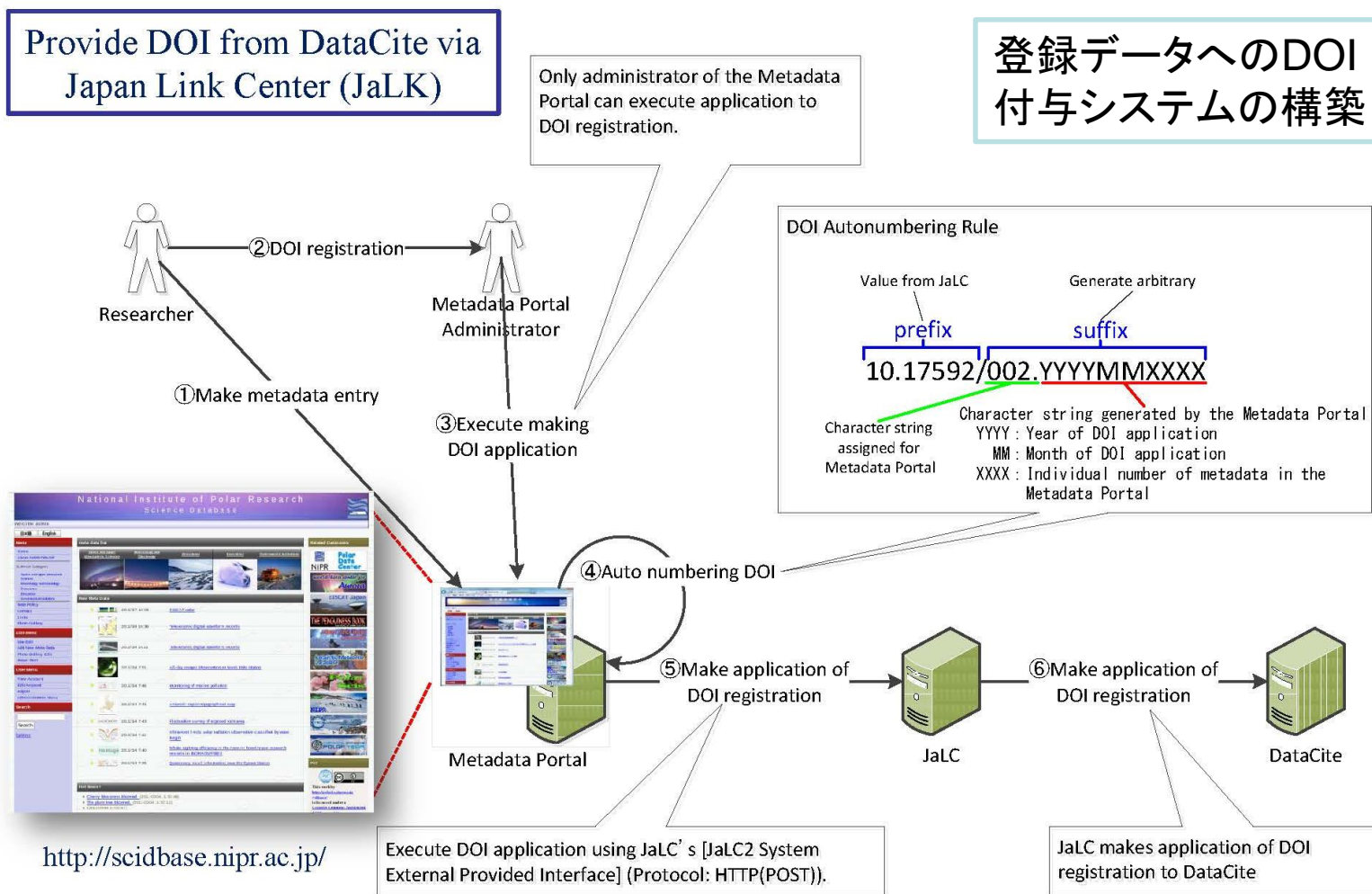
Exchange of Data & Information

Data Publication

(DOI assignment to the data inside PEDSC metadata portal)

Provide DOI from DataCite via Japan Link Center (JaLC)

登録データへのDOI付与システムの構築



A flow chart to obtain the DOI prefix from DataCite to the PEDSC metadata portal server (<http://scidbase.nipr.ac.jp/>) via the JaLC gateway interface.

SCADM Annual Meeting 2019

SCADM Annual Meeting 2019

27 May 2019 - 29 May 2019, Belgium/ Brussels/ Royal Belgian Institute for Natural sciences / Raadzaal

The Scientific committee on data management had their annual meeting at the Royal Belgian Institute for Natural Sciences in Belgium. This museum has a Dinosaur Gallery with a surface area of over 3000 m² and dozens of specimens. The Dinosaur Gallery is the largest room in Europe entirely devoted to dinosaurs, their discovery, lives and evolution. The museum was an ideal location to hold the meeting, as it reinforced the importance of preserving data for humankind for the future. The meeting was attended by several countries within the SCAR community.



Feedback from countries and activities in the past year were provided:

- The Netherlands (Taco de Bruin and Marten Tacoma, NIOZ)
- Finland (Arto Viitika, Arctic Center)
- Germany (Stephanie Schumacher, Pangea)
- Japan (Masaki Kanao, Japan Polar Environmer)
- Australia (Johnathan Kool, AADC)
- USA (Frank Nitsche, USAP-DC)
- UK (Helen Peat, BAS)
- Sweden (David Rayner, Univ. Gothenburg)



SCADM @ Brussels

2019 May



- **第23回南極データマネージメント委員会 (Standing Committee on Antarctic Data Management; SCADM-23) : 2019年5月27 - 29日**
- 参加者21名 (Skype等による遠隔参加者5名含む)
- 議長Anton Van de Putte (ベルギー) の進行
- NASA/GCMDの南極マスターディレクトリー (AMD) 年次報告
- 南大洋観測システム (SOOS) のデータ管理の現況報告
- 各国の南極データセンター (NADC) のデータ管理状況 (National Reports)
- 11カ国 (アメリカ、オーストラリア、フィンランド、ドイツ、オランダ、ノルウェー、イギリス、南アフリカ、中国、ベルギー)
- 我が国からは極域環境データサイエンスセンター活動を中心に、データ相互利用・データ出版 (DOI付与)・Polar Data Journal等について説明
- アジア極域科学フォーラム (AFoPS) でのデータ共有促進について、Masaki Kanaoより説明・意見交換。今後AFoPS各国との協同によりGCMDでの専用ポータルサーバ構築、連携データ検索 (Federation data search) 等によるデータ相互利用と共有促進
- 2018-2020年のSCADMワークプランに対する活動報告、オランダの新規データ交換インフラ (POLDER) の紹介、GCMDへの今後の要求項目のリストアップ (DIF形式のバージョンアップに伴う問題点等)、等を議論



PROVIDE A FOUNDATION FOR
COOPERATIVE RESEARCH ACTIVITIES



The Asian Forum for Polar Sciences

The Asian Forum for Polar Sciences (AFoPS) is a non-governmental organization established in 2004 to encourage and facilitate cooperation for the advance of polar sciences among countries in the Asian region.

The Forum consists of its 6 Members, national polar research institutions representing **China, Japan, South Korea, India, Malaysia and Thailand**. AFoPS also has 4 observers: **Indonesia, Philippines, Sri Lanka and Vietnam**.

Dr. Yang Huigen, Director General of Polar Research Institute of China (PRIC), serves as the Chair of AFoPS for 2017-2018.

INFORMATION

AFoPS Key Documents

Meeting Papers

News

Photos

Databases

Useful Links

Databases

Home > Information > Databases



Promote data inter-operability among AFoPS involved countries
「アジア極域科学フォーラム 参画各国でのデータ共有の推進」

PRIC

Resource-sharing Platform of Polar samples >

Chinese National Arctic and Antarctic Data Center >

Gate to the Poles

NIPR

Polar Data Center

Science Database

Dome Fuji Ice Core (in Japanese)

KOPRI

Korea Polar Data Center >

Antarctic Functional Genomics Project >

Polar and Alpine Microbial Collection >

Korea Curations of Antarctic Meteorities >

NCAOR

National Polar Data Center >

National Marine Geoscientific Datacentre >

Arctic Data Committee (ADC/ IASC / ICSU)

International Arctic Science Committee



IASC ACTIVITIES ASSW OUTREACH CAPACITY BUILDING DATA & OBSERVATIONS

ARCTIC DATA COMMITTEE



HOME ABOUT US ACTIVITIES MEETINGS PRODUCTS MEMBER AREA

IASA / Kathryn Hansen



ADC News & Events

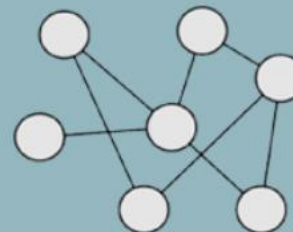
Arctic Observing Summit, 24-26 June 2018, Davos, Switzerland
3 Nov 2017

Polar 2018, 15-26 June, 2018, Davos, Switzerland
3 Nov 2017

ISAR-5, 15-18 January 2018, Tokyo, Japan



ARCTIC DATA



INTEROPERABILITY



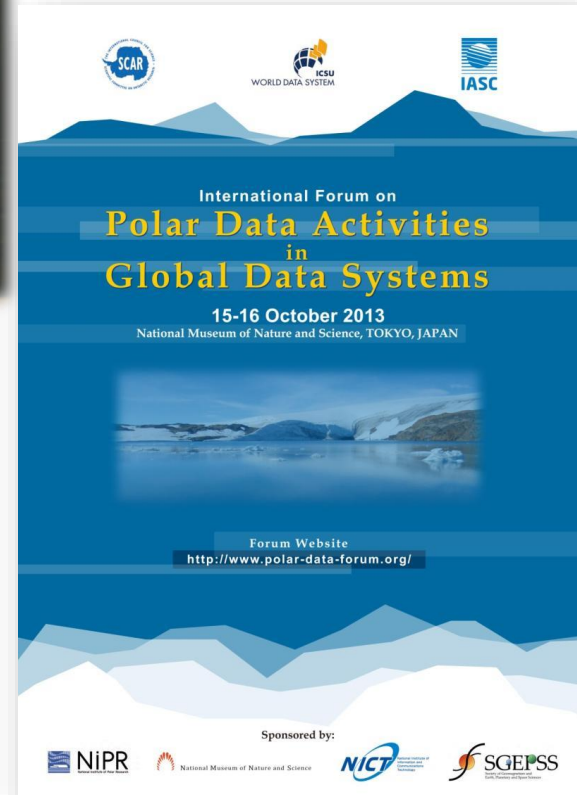
GET INVOLVED!

15 -16 October 2013



極域データ関連の国際シンポジウム開催

International Forum on 'Polar Data Activities in Global Data Systems'



Polar Data Forum I → II, III

Polar Data Forum II

Polar Data Forum II, October 2015, Waterloo, Canada



Polar Data Forum I

Polar Data Forum I, October 2013, Tokyo, Japan

PDF I site



Third Polar Data Forum

November 18 to 22, 2019 - Helsinki, Finland

Abstract submission deadline: 6 September

Registration deadline: 18 October

ABSTRACTS

REGISTRATION

Third Polar Data Forum Themes and Activities

A call for papers, and posters for presentation on Days 1 and 2, and working or hackathon activities for Days 3,4,5

Paper and Poster Themes

<https://polar-data-forum.org/>

- Community and network building
- Data discovery and federated search
- All aspects of data interoperability (syntactical, structural, semantic, social)
- Standards and protocols to improve data access
- Analysis of user needs
- Enabling data reuse for multiple audiences
- Ethical utilization of data derived from Indigenous knowledge and community based monitoring
- Data management for polar social science and humanities
- Cloud computing and other advanced analytical methods and platforms
- Sensor webs and observing systems
- Critical studies on polar data management (e.g. Science and Technology Studies)
- Any topic relevant to polar data