

Recent activity of DOI-minting to database by WDCs in Japan

能勢正仁¹、小山幸伸¹、家森俊彦¹、村山泰啓²、木下武也²
渡邊堯²、石井守³、山本和憲³、加藤久雄³、門倉昭⁴、篠原育⁵

¹ 京都大学理学研究科地磁気世界資料センター

² 情報通信研究機構・世界資料システム国際プログラムオフィス(WDS/IPO)

³ 情報通信研究機構・電離層及び宇宙天気世界資料センター

⁴ 国立極地研究所・オーロラ世界資料センター

⁵ 宇宙航空研究開発機構・宇宙科学衛星世界資料センター

AGUの立場表明



2012 position statement (立場表明)

- ✓ 地球科学データは広く利用可能であるべきで、その長期保存は科学者や研究機関の必須の責任である。
- ✓ データの公開・共有の重要性
- ✓ リアルタイムデータの重要性
- ✓ 長期間データの重要性
- ✓ データアーカイブの重要性
- ✓ これまでの科学活動の研究結果と同じように、評価・引用されうるデータ出版という概念を是認する
- ✓ The scientific community should recognize the professional value of such activities by **endorsing the concept of publication of data, to be credited and cited like the products of any other scientific activity**, and encouraging peer-review of such publications.

Earth and Space Science Data Should Be Widely Accessible in Multiple Formats and Long-term Preservation of Data is an Integral Responsibility of Scientists and Sponsoring Institutions

Earth and space sciences data bases are a world heritage that should be made available to the scientific community and public as soon as possible (in some cases in real-time), should be organized and preserved in useable format, and should be conserved long-term for future use. The responsibility for achieving this falls upon individual scientists and their sponsoring institutions, and should be considered an integral part of conducting scientific research.

Earth and space science data collection, analysis, and archiving are essential to our understanding of the natural environment and how it changes with time. AGU policy is grounded in the principle of full and open sharing of such data and associated metadata for research and education. Adherence to this policy will foster scientific advances, yield economic benefits, improve decision-making, enhance public safety and wellbeing, contribute to national and global security, and lead to a more informed public.

AGU extends this policy to data and derived products acquired with both public and private funding. To maximize scientific and educational returns, Earth and space science data should enter the public domain as soon as possible. The marginal cost of data dissemination is a legitimate charge to users. In limited circumstances, access to certain data might be restricted to protect security, confidentiality, or commercial value, but such restrictions should remain infrequent and temporary and be carefully justified on a case-by-case basis.

For some issues, such as responding to natural hazards, access to real-time data is critical. Further, assimilation of near-real-time data in models is becoming increasingly important for monitoring and predicting changes in the Earth's environment and climate. Newly generated Earth and space science data and associated metadata should therefore be submitted to the appropriate governmental or intergovernmental data center promptly.

Documenting trends and long-term changes is essential for understanding many natural phenomena. Because the state of natural systems is never repeated, data losses, or missed data collection opportunities can never be corrected. Consequently, the value of Earth and space science data grows with time, placing a premium on long-term data curation. Because datasets are often later used for purposes other than those for which they were collected, accurate, complete, and, when possible, standardized metadata are as important

最近のAGU論文のデータポリシー

AGU Publications Data Policy

- ✓ 2012 position statementに基づいて、データへのアクセス方法や在りかを明示することが義務化されている。
- ✓ 明示が無かったり、拒否すると、出版を受け付けてもらえない。
- ✓ 現在は、Acknowledgmentsに記載することになっている。

- ✓ 査読者へも、Acknowledgmentsにデータポリシーに則った記載があるか評価するように求められている。

AGU encourages authors to identify and archive their data in approved data centers. If there is no relevant public repository available, and the data are such that they cannot easily be included in a supplement, authors are expected to curate the above data for at least 5 years after publication and provide a transparent process to make the data available to anyone upon request. Data sets that are not curated or cannot be reliably made available to anybody requesting data may not be cited in AGU publications. Limitations or restrictions on sharing data must be reported to the Editor for consideration at the time of submission.

AGU reserves the right to refuse publication when authors are unwilling to make the underlying data available or otherwise refuse to comply with this Data Policy.

Detailed information describing data or methodology used when the data or methods are new may be presented in one of the following 5 ways: (1) in the main text, (2) in a 'Materials and Methods' section in the manuscript, (3) as Supporting information, (4) as an Appendix, and (5) as a short Companion paper. At the time of first publication online, which is usually a few days after acceptance, any companion paper, and all other references, must be available to other scientists. Papers may be held until companion or referenced papers are available.

AGU requires an explicit statement in the "Acknowledgments" section of a paper that clarifies how users can access the data from a paper (via supplements, repositories, authors, other sources, etc.) and states any restrictions on access.

<http://publications.agu.org/author-resource-center/publication-policies/data-policy>

REVIEWERS

AGU's new Data Policy states that all data necessary to understand, evaluate, replicate, and build upon the reported research must be made available and accessible whenever possible. In addition to continuing AGU's high submission and peer review standards, the policy allows the Editor to decide whether or not authors have a legitimate rationale for restricting data access and can:

- (1) accept the authors' justification for data access restrictions and peer review the paper,
- (2) send the paper back to the author to revise the Acknowledgments section and include data access information, or
- (3) recommend a refusal-to-publish to the Director of Publications.

When reviewing a manuscript, AGU asks Editors, Associate Editors, and Reviewers to pay particular attention to the Acknowledgments section to ensure compliance to the Data Policy. Please report a failure to comply with this policy when submitting your review.

<http://publications.agu.org/author-resource-center/publication-policies/data-policy/data-policy-faq/>

その結果。。。

- ✓ データ解析の論文では、Acknowledgmentsは、非常に長い記述が続くことが多くなっている。
- ✓ 右の例
 - AL index
 - Dst index
 - Kp index
 - Wp index
 - Van Allen Probes/EMFISIS
 - Van Allen Probes/ECT-HOPE
- ✓ 将来的には、データセンターのアーカイブやリポジトリに対して、「データ引用」することが容易に想像される。

Acknowledgments

The *AL* and *Dst* indices were provided by the World Data Center for Geomagnetism, Kyoto, and are available at <http://wdc.kugi.kyoto-u.ac.jp>. The *Kp* index was provided by H. J. Linthe at the Helmholtz Centre Potsdam, GFZ German Research Centre for Geosciences and is available at <http://www.gfz-potsdam.de/kp-index>. The *Wp* index can be downloaded from <http://s-cubed.info>. The EMFISIS data are available at <http://emfisis.physics.uiowa.edu>. The ECT-HOPE data are available at <http://www.rbsp-ect.lanl.gov>. The electron number density at a local probe position can be obtained on request from W. S. Kurth (william-kurth@uiowa.edu). Geomagnetic field by the Tsyganenko 1989c model was calculated with GEOPACK routines developed by N. A. Tsyganenko and coded by H. Korth. We are thankful to K. Takahashi, and Y. Obana for their helpful comments. This study was supported by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), grant-in-aid for Scientific Research (B) (grant 25287127). The work at Iowa was supported by JHU/APL contract 921648 under NASA Prime contract NAS5-01072. This work was supported by RBSP-ECT funding provided by JHU/APL contract 967399 under NASA Prime contract NAS5-01072. Work at Los Alamos National Laboratory was performed under the auspices of the U.S. Department of Energy, LA-UR-15-20090.

Michael Liemohn thanks the reviewers for their assistance in evaluating this paper.

Elsevierの学術誌におけるデータリポジトリとの協同

- ✓ 学術論文で用いられた観測データはデータリポジトリに保管してもらう。
- ✓ そのデータアーカイブへのリンクが論文のページから参照できる。
- ✓ データリポジトリの例
 - Atmospheric Radiation Measurement (ARM) Data Archive
 - Marine Geoscience Data System (MGDS)
 - PANGAEA
 - ...

The screenshot shows a ScienceDirect article page. The article title is "Calcium carbonate corrosiveness in the South Atlantic during the Last Glacial Maximum as inferred from changes in the preservation of *Globigerina bulloides*: A proxy to determine deep-water circulation patterns?". The authors are A N A Volbers and R Henrich. The DOI is 10.1016/S0025-3227(03)00372-4. A red box highlights a "PANGAEA® - Related Data" link, which leads to a map of the Atlantic Ocean showing the study area. A red arrow points from this link to the PANGAEA website screenshot below.

The screenshot shows the PANGAEA website page for the article. The URL is doi.pangaea.de/10.1594/PANGAEA.735719. The page title is "PANGAEA® Data Publisher for Earth & Environmental Science". The "Data Description" section contains the following information:

Citation: Volbers, ANA; Henrich, R (2004): Dissolution index of *Globigerina bulloides* in recent and Last Glacial Maximum sediments. doi:10.1594/PANGAEA.735719.

Supplement to: Volbers, Andrea N A; Henrich, Rüdiger (2004): Calcium carbonate corrosiveness in the South Atlantic during the Last Glacial Maximum as inferred from changes in the preservation of *Globigerina bulloides*: A proxy to determine deep-water circulation patterns? *Marine Geology*, 204(1-2), 43-57, doi:10.1016/S0025-3227(03)00372-4

Abstract: The modern Atlantic Ocean, dominated by the interactions of North Atlantic Deep Water (NADW) and Antarctic Bottom Water (AABW), plays a key role in redistributing heat from the Southern to the Northern Hemisphere. In order to reconstruct the evolution of the relative importance of these two water masses, the NADW/AABW transition, reflected by the calcite lysocline, was investigated by the *Globigerina bulloides* dissolution index (BDX⁷). The depth level of the Late Glacial Maximum (LGM) calcite lysocline was elevated by several hundred metres, indicating a more corrosive water mass present at modern NADW level. Overall, the small range of BDX⁷ data and the gradual decrease in preservation below the calcite lysocline point to a less stratified Atlantic Ocean during the LGM. Similar preservation patterns in the West and East Atlantic demonstrate that the modern west-east asymmetry did not exist due to an expansion of southern deep waters compensating for the decrease in NADW formation.

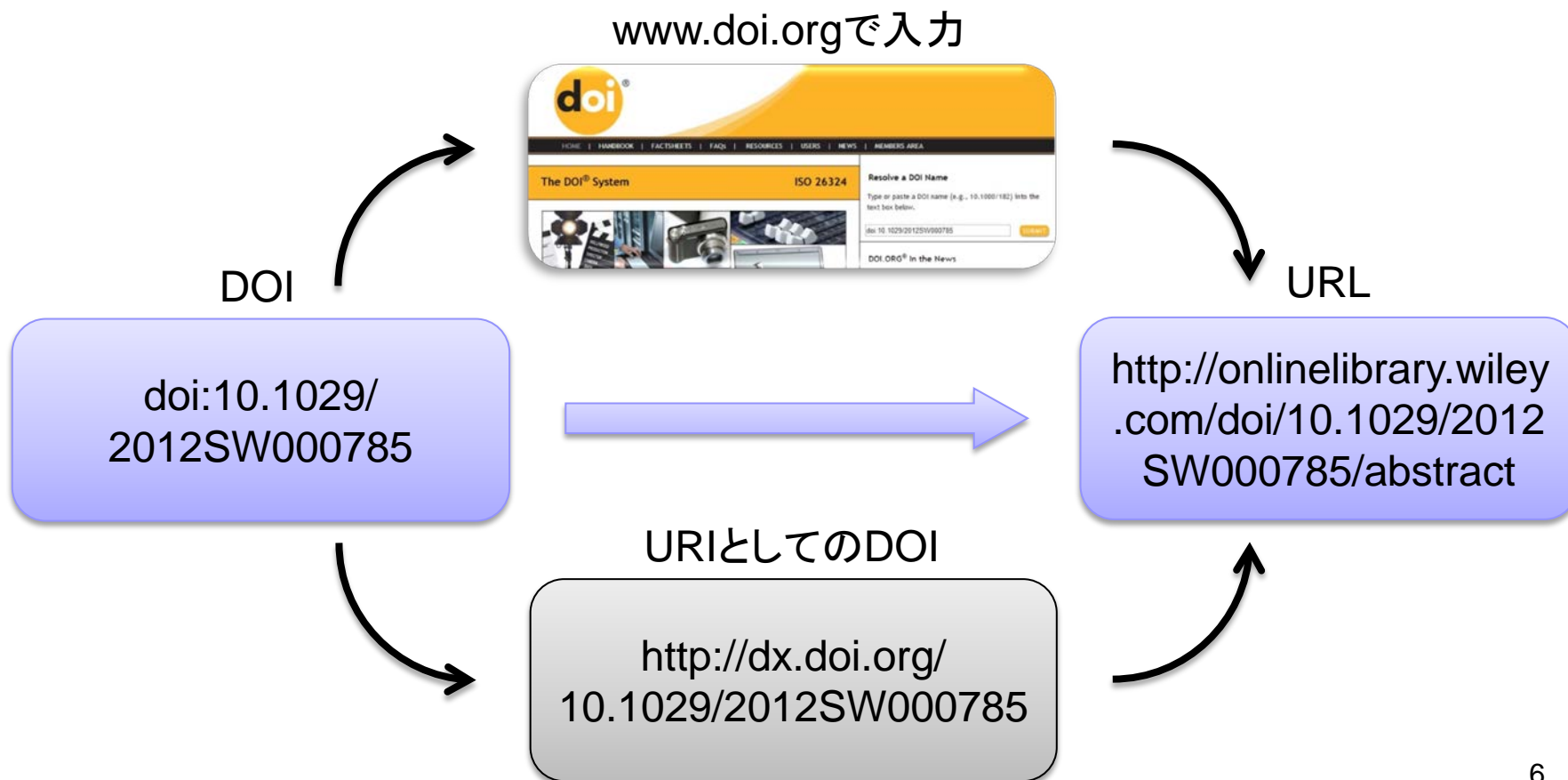
Related to: Volbers, Andrea N A (2001): Planktic foraminifera as paleoceanographic indicators: Production, preservation, and reconstruction of upwelling intensity. Implications from late quaternary South Atlantic sediments. *Berichte aus dem Fachbereich Geowissenschaften der Universität Bremen*, 184, 114 pp. urn:nbn:de:gbv:46-00101382-15

Project(s): Geosciences, University of Bremen (GeoB) & South Atlantic in Late Quaternary: Reconstruction of Budget and Currents (SFB261)

- ✓ 将来的に、そのデータが他の研究に用いられた際には、「データ引用」がなされると想像される。

DOI (Digital Object Identifier)

- ✓ doi識別子を、デジタルオブジェクトが存在するURLに変換するサービス
- ✓ **doi:10.1029/2012SW000785**
→ **<http://onlinelibrary.wiley.com/doi/10.1029/2012SW000785/abstract>**



学術論文に付与されたDOI識別子

SPACE WEATHER, VOL. 10, S08002, doi:10.1029/2012SW000785, 2012

Wp index: A new substorm index derived from high-resolution geomagnetic field data at low latitude

M. Nosé,¹ T. Iyemori,¹ L. Wang,² A. Hitchman,² J. Matzka,³ M. Feller,⁴ S. Egdorf,⁴ S. Gilder,⁴ N. Kumasaka,⁵ K. Koga,⁶ H. Matsumoto,⁶ H. Koshiishi,⁶ G. Cifuentes-Nava,⁷ J. J. Curto,⁸ A. Segarra,⁸ and C. Çelik⁹

Received 27 February 2012; revised 6 June 2012; accepted 7 June 2012; published 1 August 2012.

[1] Geomagnetic field data with high time resolution (typically 1 s) have recently become more commonly acquired by ground stations. Such high time resolution data enable identifying Pi2 pulsations which have periods of 40–150 s and irregular (damped) waveforms. It is well-known that pulsations of this type are clearly observed at mid- and low-latitude ground stations on the nightside at substorm onset. Therefore, with 1-s data from multiple stations distributed in longitude around the Earth's circumference, substorm onset can be regularly monitored. In the present study we propose a new substorm index,

Citation: Nosé, M., et al. (2012), Wp index: A new substorm index derived from high-resolution geomagnetic field data at low latitude, *Space Weather*, 10, S08002, doi:10.1029/2012SW000785

データベースに付与されたDOI識別子 (PANGAEA)

- ✓ データリポジトリにアーカイブ(≈データ出版)されたデータベース
- ✓ 氷河時代の海面温度proxyデータ
- ✓ doi:10.1594/PANGAEA.127383

→ <http://doi.pangaea.de/10.1594/PANGAEA.127383>

de Vernal, A et al. (200- x) Landing Page

doi.pangaea.de/10.1594/PANGAEA.127383

Not logged in (log in or sign up)

 **PANGAEA®**
Data Publisher for Earth & Environmental Science

Always quote citation when using data!

Data Description データの出版・引用

Citation: de Vernal, Anne; Eynaud, Frédérique; Henry, Maryse; Hillaire-Marcel, Claude; Londeix, Laurent; Mangin, Sylvie; Matthiessen, Jens; Marret, Fabienne; Radi, Taoufik; Rochon, André; Solignac, Sandrine; Turon, Jean-Louis; MARGO, SST (2004): Compilation of dinoflagellate cyst LGM SST data.
doi:10.1594/PANGAEA.127383.

In: Barrows, TT et al. (2011): Various paleoclimate proxy parameters compiled within the MARGO project. doi:10.1594/PANGAEA.760904

Project(s): Multiproxy Approach for the Reconstruction of the Glacial Ocean surface (MARGO) 🔍

Coverage: Median Latitude: 0.000000 * Median Longitude: 0.000000 * South-bound Latitude: none * West-bound Longitude: none * North-bound Latitude: none * East-bound Longitude: none

Event(s): MARGO_0000 🔍 * Device: Literary studies 🔍

License:  Creative Commons Attribution 3.0 Unported

Size: 29.0 kBytes

Download Data データのダウンロード

Download dataset

データベースに付与されたDOI識別子 (NOAA/NGDC)

✓ EMAG2: Earth Magnetic Anomaly Grid (2-arc-minute resolution)

doi:10.7289/V5MW2F2P



http://www.ngdc.noaa.gov/nmmrview/metadata.jsp?id=gov.noaa.ngdc.mgg.geophysical_models:EMAG2&view=iso2html

デジタルデータ

```

-55.033333 -89.900000 -56.134989
-55.000000 -89.900000 -56.127400
-54.966667 -89.900000 -56.119808
-54.933333 -89.900000 -56.112213
-54.900000 -89.900000 -56.104616
-54.866667 -89.900000 -56.097016
-54.833333 -89.900000 -56.089413
-54.800000 -89.900000 -56.081806
-54.766667 -89.900000 -56.074197
-54.733333 -89.900000 -56.066584
-54.700000 -89.900000 -56.058968
-54.666667 -89.900000 -56.051348
-54.633333 -89.900000 -56.043725
-54.600000 -89.900000 -56.036097
-54.566667 -89.900000 -56.028466
-54.533333 -89.900000 -56.020832
-54.500000 -89.900000 -56.013193
-54.466667 -89.900000 -56.004623
    
```

EMAG2: Earth Magnetic Anomaly Grid (2-arc-minute resolution)

doi:10.7289/V5MW2F2P

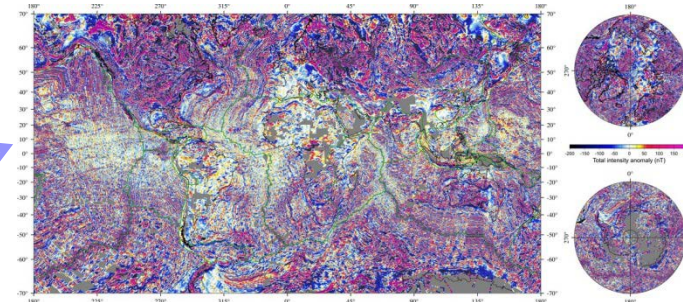
Get the Data

Access	Format(s)	Distributor(s) / Contact Info	Instructions / Constraints
download EMAG2 Full Resolution Map poster PDF of Full Resolution Map of EMAG2 as a poster	Full Resolution Map Format version: Version 2 Format specification: PDF of EMAG2 as a poster		Use Limitation Cite as: Stefan Maus (2009): EMAG2: Earth Magnetic Anomaly Grid (2-arc-minute resolution). National Geophysical Data Center, NOAA. Model. doi:10.7289/V5MW2F2P [access date]
download EMAG2 Full Resolution Map poster JPG of Full Resolution Map of EMAG2 as a poster.	Full Resolution Map Format version: Version 2 Format specification: JPG of EMAG2 as a poster		
download EMAG2 Full Resolution Map image JPG of Full Resolution Map of EMAG2 as an image.	Full Resolution Map Format version: Version 2 Format specification: JPG of EMAG2 as an image		
download EMAG2 Full Resolution Map image JPG of Full Resolution Map of EMAG2 as an image.	Article Format version: Version 2 Format specification: Preprint of manuscript "EMAG2: A 2-arc-minute resolution Earth Magnetic Anomaly Grid compiled from satellite, airborne and marine magnetic measurements", submitted for publication to Geochem. Geophys. Geosyst.		Produced by the NOAA National Geophysical Data Center. Not subject to copyright protection within the United States. Not to be used for navigation. Although these

Landing Page

データの説明、フォーマット、データへのリンクなど

データのプロット



データの出版・引用

Maus (2009): EMAG2: Earth Magnetic Anomaly Grid (2-arc-minute resolution). National Geophysical Data Center, NOAA. Model, doi:10.7289/V5MW2F2P [access date]

Data Citationの実例

ソリュートレ仮説(大西洋横断によるアメリカ大陸への人類の移動)を検証したもの

2008

Journal of the North Atlantic

1:85-98

The Solutrean Atlantic Hypothesis: A View from the Ocean

Kieran Westley^{1,2*} and Justin Dix³

Abstract - One current hypothesis for the Pleistocene peopling of the Americas invokes a dispersal by European hunter-gatherers along a biologically productive "corridor" situated on the edge of the sea-ice that filled the Atlantic Ocean during the Last Glacial Maximum (LGM). In this paper, we assert that critical paleoceanographic data underpinning this hypothesis has not yet been examined in sufficient detail. To this end, we present data which show that the corridor may not have existed, and that, if it did, its suitability as a migration route is highly questionable. In addition to demonstrating that the hypothesized migration was unlikely, this highlights the importance of integrating paleoceanographic and archaeological data in studies of paleo-coastal societies.

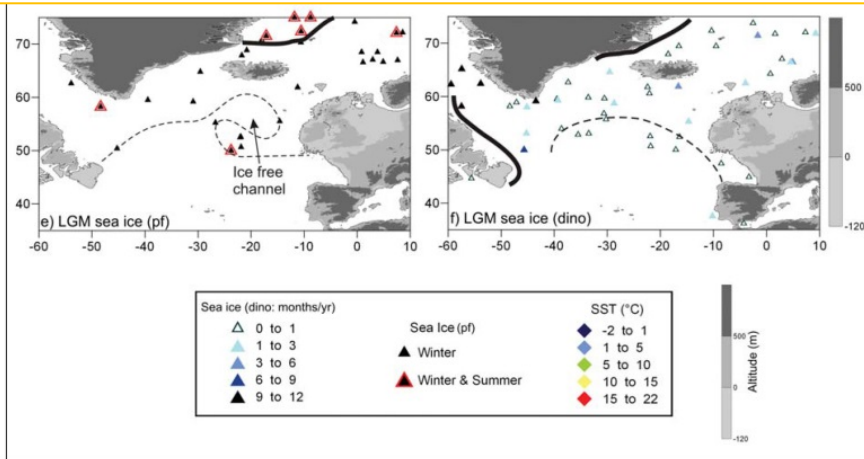
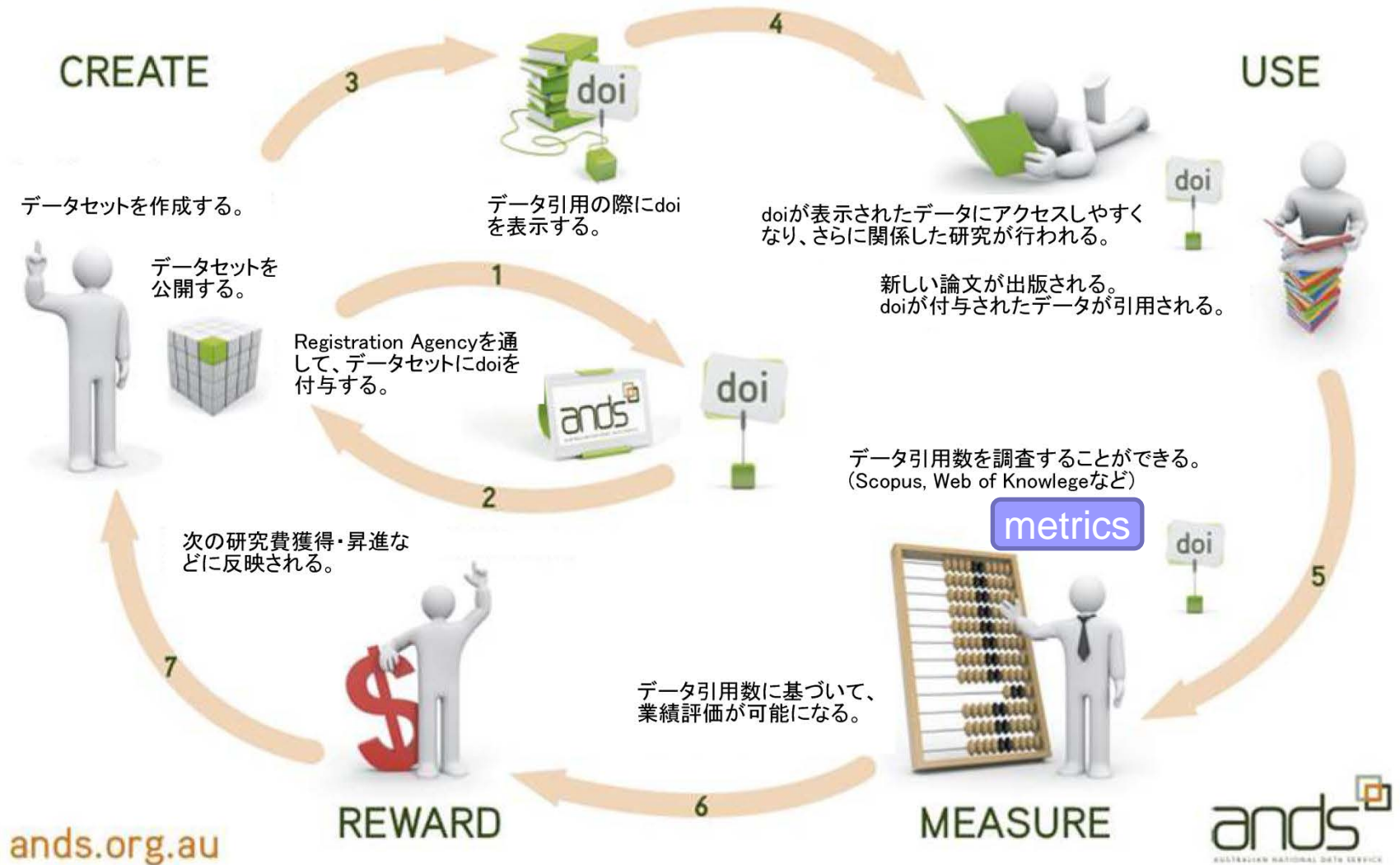


Figure 2. Quantitative reconstructions of LGM North Atlantic paleoceanography based on two different proxies: dinocysts and planktonic foraminifera. Data from De Vernal et al. (2004) and Weinelt (2004) (See also De Vernal et al. 2006, Kucera et al. 2005). a) Summer SSTs from planktonic foraminifera. b) Winter SSTs from planktonic foraminifera. c) Summer SSTs from dinocysts. d) Winter SSTs from dinocysts. e) Sea-ice extents from planktonic foraminifera: triangles show core sites with evidence of summer and winter ice. Heavy black line represents the extent of perennial ice, and dashed line is the maximum extent of winter ice (based on Sarnthein et al. 2003). f) Sea-ice extents from dinocysts: triangles show core sites with evidence of the duration of ice in months per year. Heavy black line represents the extent of perennial ice, and dashed line is the maximum extent of winter ice (based on De Vernal et al. 2006).

References

- M. Chapman. 2003. Interannual-scale oceanic climate variability on the Western Iberian margin during the last two glacial periods. *Marine Geology* 196:1-20.
- De Vernal, A., and C. Hillaire-Marcel. 2000. Sea-ice cover, sea-surface salinity, and halo-/thermocline structure of the northwest North Atlantic: Modern versus full glacial conditions. *Quaternary Science Reviews* 19:65-85.
- De Vernal, A., and T. Pedersen. 1997. Micropaleontology and palynology of core PAR87A-10: a 23,000 year record of paleoenvironmental changes in the Gulf of Alaska, northeast North Pacific. *Paleoceanography* 12(6):821-830.
- De Vernal, A., F. Eynaud, M. Henry, C. Hillaire-Marcel, L. Londeix, S. Mangin, J. Mattheissen, F. Marret, T. Radi, A. Rochon, S. Solignac, and J.-L. Turon. 2004. MARGO (SST) unpublished data: Compilation of dinoflagellate cyst LGM SST data. doi: 10.1594/PANGAEA.127383. World Data Center for Marine Environmental Sciences (WDC-MARE), Publishing Network for Geoscientific and Environmental Data (PANGAEA). Available online at <http://www.pangaea.de/>. Accessed June 2006.
- De Vernal, A., F. Eynaud, M. Henry, C. Hillaire-Marcel, L. Londeix, S. Mangin, J. Mattheissen, F. Marret, T. Radi, A. Rochon, S. Solignac, and J.-L. Turon. 2005. Reconstruction of sea-surface conditions at middle to high latitudes of the Northern Hemisphere during the Last Glacial Maximum (LGM) based on dinoflagellate cyst assemblages. *Quaternary Science Reviews* 24:897-924.
2000. Luminescence dating of sand deposits related to late Pleistocene human occupation at the Cactus Hill Site, Virginia, USA. *Quaternary Geochronology* 1:167-187.
- Fiedel, S.J. 1992. *Prehistory of the Americas*. Cambridge University Press, Cambridge, UK.
- Fiedel, S.J. 1999. Older than we thought: Implications of corrected dates for Paleoindians. *American Antiquity* 64(1):95-115.
- Fiedel, S.J. 2000. The peopling of the New World: Present evidence, new theories, and future directions. *Journal of Archaeological Research* 8(1):39-103.
- Fladmark, K. 1979. Routes: Alternate migration corridors for early man in North America. *American Antiquity* 44(1):55-69.
- Gamble, C., W. Davies, P. Pettitt, L. Hazelwood, and M. Richards. 2005. The archaeological and genetic foundations of the European population during the Late Glacial: Implications for "agricultural thinking." *Cambridge Archaeological Journal* 15(2):193-223.
- Heaton, T.A., S.L. Talbot, and G.F. Shields. 1996. An Ice Age refugium for large mammals in the Alexander Archipelago, Southeastern Alaska. *Quaternary Research* 46:186-192.
- Hemming, S.R. 2004. Heinrich events: Massive Late Pleistocene detritus layers of the North Atlantic and their global climate imprint. *Review of Geophysics* 42:RG1005.
- Henshaw, A. 2003. Polynyas and ice-edge habitats in cultural context: Archaeological perspectives from

Building a Culture of Data Citation



研究活動・データベース整備活動に対する評価

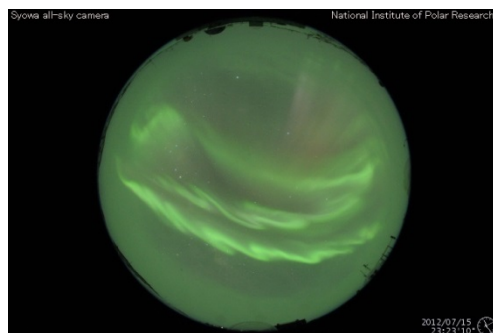
- ✓ 研究活動は、論文に伴う客観的な数値により評価されやすい。
- ✓ データベース整備活動は、これまでは客観的な評価基準が不明確だった。
 - せいぜい、著者の良心によってacknowledgmentに記載されるだけ。
 - AGUの雑誌では、acknowledgmentへの記載が義務化されるようになった。
- ✓ データベースに対しても、論文出版のような考え方・仕組みが普及すれば。。。
- ✓ doiの導入によって、それが可能な段階に移りつつある。
 - 計量(metrics)になり得る。

	能動的	受動的
研究活動	論文数 [n編]	論文被引用数 [h指数, g指数]
データベース整備活動	データベース数 (Data Publication) [n個]	データ被引用数 (Data Citation) [h指数, g指数]

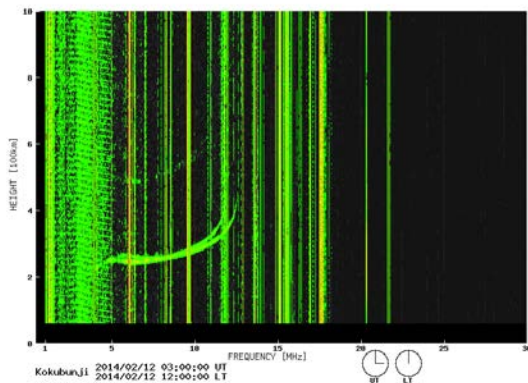
国内WDCにおけるデータベースへのDOI付与

- ✓ 国内の4ヶ所のWDCで、DOI付与について2013年8月より話し合いを行ってきた。
 - WDC for Aurora (国立極地研究所)
 - WDC for Geomagnetism (京都大学)
 - WDC for Ionosphere and Space Weather (NICT)
 - WDC for Space Science Satellites (JAXA)

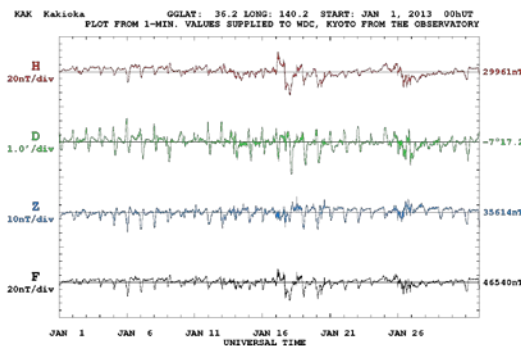
オーロラ全天カメラデータ
(WDC for Aurora)



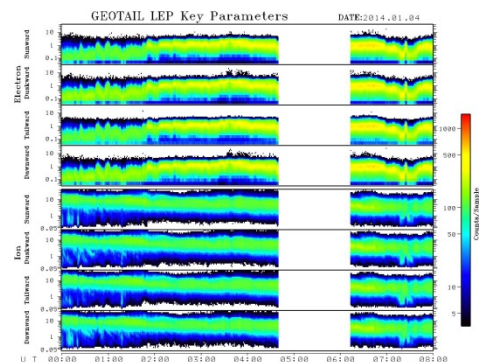
イオノグラムデータ
(WDC for Ionosphere and Space Weather)



マグネトグラムデータ
(WDC for Geomagnetism)

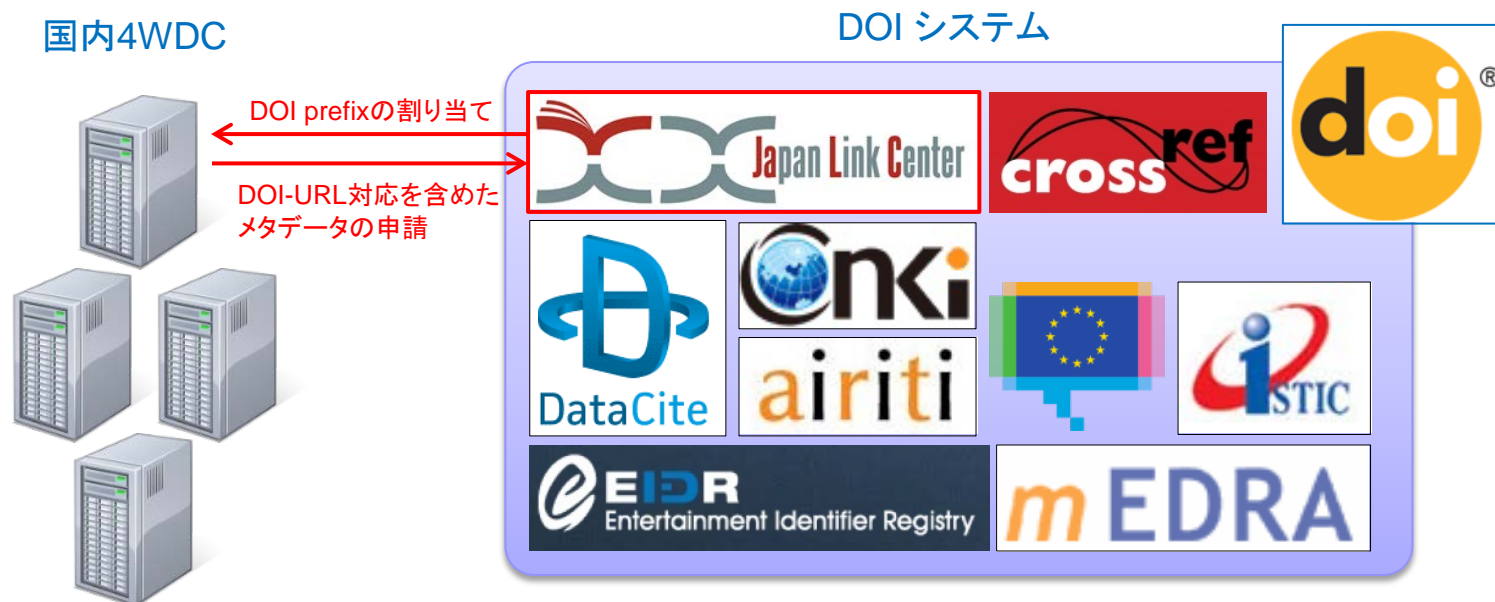


人工衛星粒子データ
(WDC for Space Science Satellite)



DOI-URL対応の登録

- ✓ DOI-URL対応の登録は、国際DOI財団から認定を受けたRegistry Agencyに対して申請する。
- ✓ Registry Agencyは現在9機関。(各々の得意分野がある。)
- ✓ Registry Agencyは、doi prefixを割り当てる。doi suffixは各WDCが与える。
doi:10.1234/abcdefg12345
prefix suffix
- ✓ 各WDCは、DOI-URL対応情報を含めたメタデータの作成と登録・管理をする。



研究データへのDOI登録実験プロジェクト

- ✓ 2014年10月より、Registry Agencyの1つであるジャパンリンクセンター(JaLC)により、「研究データへのDOI登録実験プロジェクト」が開始された。
- ✓ 「WDS/国際プログラムオフィス+国内4WDC」を始めとして、合計9機関がこの実験プロジェクトに参加している。
- ✓ 現在は、登録テストを行いそのフィードバックをJaLCおよび参加機関で共有するという状況にある。

5. スケジュール

実施期間：平成 26 年 10 月～平成 27 年 9 月

#	項目	8	9	10	11	12	1	2	3	4	5	6	7	8	9
1	公募準備	→													
2	公募		→												
3	方式検討			→											
4	登録テスト							→							
5	実登録									→					
6	報告							(中間報告)	→			(最終報告)	→		
7	会議体			▲			▲			▲			▲		▲

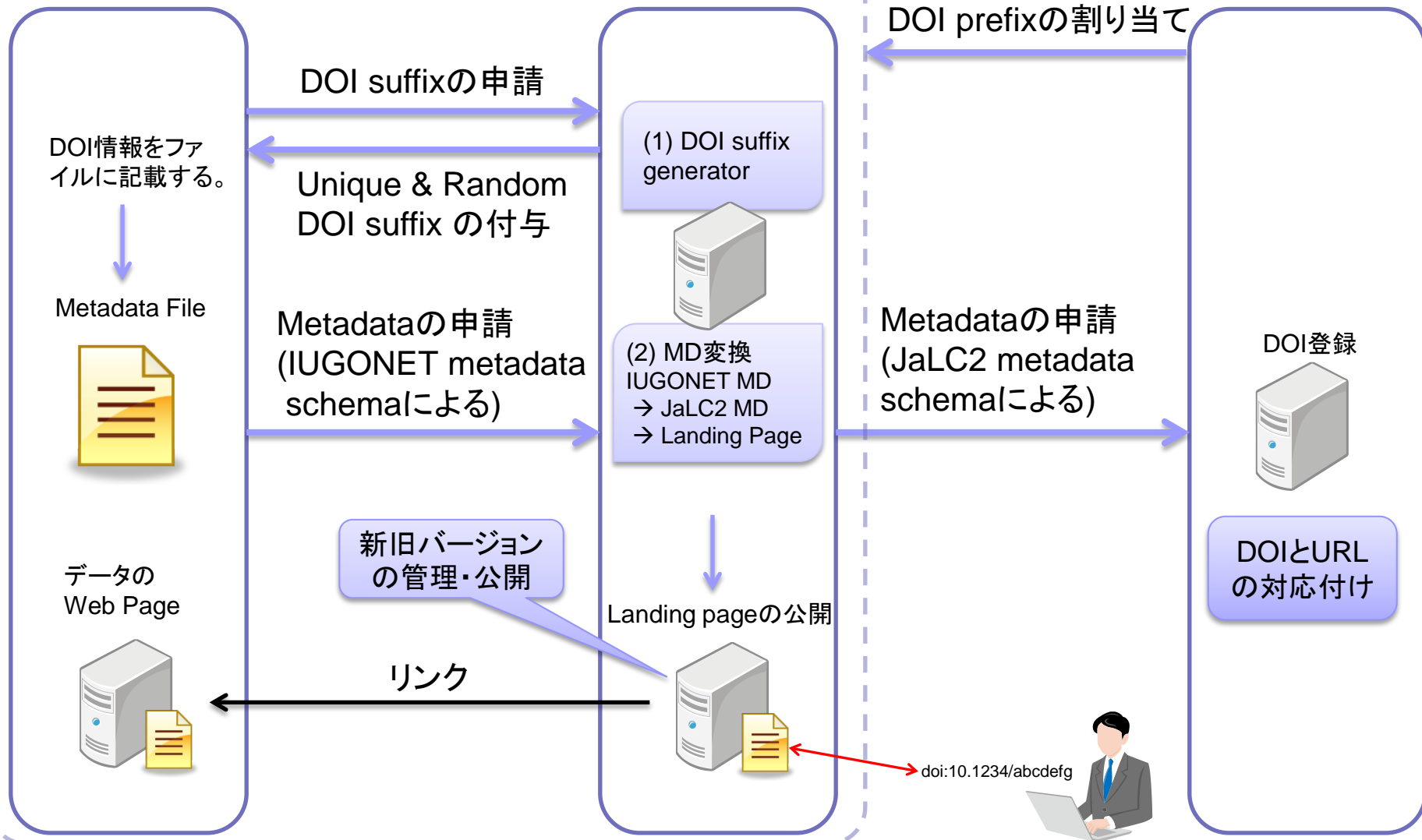
システムの開発・設計

WDS/IPO+4 Data Centers

Data Center

NICT

JaLC



テスト稼働中のシステム

doi:10.14977/06.54c861b824d66

← DOI登録(メタデータ)ページ

↓ 自動作成されるLanding Pageの例



WDS DOI Manager | Drupal Test Site

Workflow Generate Unique DOI Upload Metadata List Metadata Download Landing Pages

DOI生成ページ

メタデータファイルアップロードページ

Mineyama Geomagnetic Field Data(for JaLC registration test)

This data set is a part of the collection of geomagnetic field data at World Data Center for Geomagnetism, Kyoto (WDC-Kyoto). Mineyama is located ~100 km north of Kyoto.

Data Citation
Citation: Iyemori, T., M. Takeda, and M. Nose, (2013), Geomagnetic field data at Mineyama (MYA) with 1-sec time resolution., doi:10.14977/06.54c861b824d66

General Characteristics
Parameters: Geomagnetic Field in HDZ coordinates
Processing level: Provisional
Latitude: 35.57
Longitude: 135.05
Temporal resolution: 1 minute
Start date: 1994-01-01T00:00:00
Stop date: 1 minute, before Present

Links
Data Access: <http://wdc.kugi.kyoto-u.ac.jp/SGAMYA/index.html>
Data files can be downloaded from this link.
Browse: <http://wdc.kugi.kyoto-u.ac.jp/SGAMYA/index.html>
Data plots can be downloaded from this link.
Data: <http://repository.kulib.kyoto-u.ac.jp/dspace/handle/xxxx/xxxxx>
Documentation: Related documentation is online for download.
DOI: 10.14977/06.54c861b824d66
Digital Object Identifier
Citing data: <http://ghrc.nsstc.nasa.gov/uso/citation.html>
Instructions for citing data.

Provider Version
1.0

Update History
2015-02-18T17:05:23+0900
2015-02-09T13:07:02+0900

まとめ

- ✓ データベースに対しても、「データ出版」、「データ引用」といった論文出版・引用と同様の仕組みが考えられる。
- ✓ doiの導入によって、それが実現可能な段階に移りつつある。
(一部では実現が始まっている。)

- ✓ データ利用者はデータにアクセスしやすくなる。また、引用をたどっていくことにより、これまでに存在を知らなかったデータを発見する機会が増え、研究の発展が期待される。
- ✓ Metricsになりうるため、データ提供者・データセンターへのメリットは大きい。
 - “visibility”, “professional recognition”, “reward”を向上させる。

- ✓ 2013年8月から、WDS/IPOと国内4WDCの担当で、データへのdoi付与について話し合いを進めてきた。
- ✓ 2014年10月から、JaLCの「研究データへのDOI登録実験プロジェクト」が開始された。
- ✓ 現在は、登録テストを行いそのフィードバックをJaLCおよび参加機関で共有するという状況にある。2015年秋くらいから、本格的運用が始まる？