Institutional Repository & Open Access Expedition 2020

Jun Maeda

Supported by National Institute of Informatics





Revisiting the Values of Institutional Repositories

だが、留学に期待する最大の恩恵は、進んだ情報を本場で得る輸入業にはない。異文化からもたらされる知識は、加算的に作用して既存の世界観を豊かにするのではない。新しい知識を加えるのではなく、今ある価値体系を壊す。 これこそが留学の目的だ。

科学や学問の進歩に貢献するのは、新事実の発見だけではない。より重要なのは、事実を把握する思考枠の見直し、つまりメタレベルでの再構築である。

小坂井敏晶『答えのない世界を生きる』より

Background

JPCOAR

2020- : Repository Workflow Development Team
2018-2019: Green Open Access Analytical Team
2017-2018: JAIRO Cloud-ORCID Task Force

Library

2015.4- : Hokkaido University Library (Currently in Cataloging Section)

Academic

2015.3 : Ph.D. (Sci.) Hokkaido University

Institutional Repository & Open Access Expedition 2020

Enroute to Dublin (2/15-2/16),

Enroute from München (3/14-3/15) Dublin (2/17-2/20)

> Genève (2/21-3/6)

Zürich (3/9) ETHZ

München (3/13) MPDL

Berlin (3/10-3/12) • Open Sci. Conf.





International Digital Curation Conference

Collaboration in CERN

Visit to ETH Zurich Library

Open Science Conference

Visit to Max Planck Digital Library

Self quarantine

Conferences & Interviews

International Digital Curation Conference

FAIRsFAIR

- FAIR training tool in development: who to share, where to deposit
- Data curation = metadata
 No more than 10-20 min
- Pull-down? Accuracy and easiness
- No one wants to be police
- PhD education

RDM/DMP

- No relation between DMP quality and funding (Norway, US)
- DMP goals is to be accepted;
 Scientific outcomes are the priority
- Legal risks in SSH domain

Open Science

- 85 % researches are wasted Loss of 10.2bn Euro without FAIR
- PhD education



International Open Science Conference

Open Science

- Needs rewards and recognition
- Support to researchers
- Legal and funding questions
- Institutional resistance
 4 barriers
 - awareness
 - relevance
 - effectiveness
 - sustainability

Open data

- Qualitative data?
- Open data for citizen science

2nd day

---Closed----



IR : Leave it as a choice for **OA**





ETH Zürich Library

- Scientific activity documenting system mandatory for all faculty members
- IR as a choice for OA (No PDF request e-mail to authors)

Max Planck Digital Library

- Green OA cannot be a solution of open access: OA2020 is the best way
- Time to think the purpose/value of IRs



Japan's standard workflow (for STEM)



ETHZ, CERN's way

Research activity documenting system

This will be emerging in Japan in accordance with the wide spread of RDM system.

Researchers chose any way of open access: Gold OA, IRs, other repository, self-archive

NII RCOS

Paradigm Shift

Community driven \leftarrow IR driven

SSH : Priority, more active use STEM : "Leave IR as a choice" policy



方法:京都大学のIRであるKURENAIの アクセスログ(2017/2/27~2019/9/30))を分析して、IRでの異なるOA種別の あいだのアクセス数の差異を観察

結果:特に機関リポジトリのみでOAで ある論文のアクセス数が多い

- 論文のOA版の提供を著者へ依頼 する際には、各論文のOA状況を把 握しOA版が存在しないものを優先 して依頼することが望ましい
- このことは利用者からの需要に応えること、さらには機関リポジトリのプレゼンスの向上につながる

Nishioka (2020)

DA 種別	論文件数	75	セス数
2.98	8,932	195.12	(155.55)
1-2 F	3,003	157.74	(108.64)
イブリッド	585	166.23	(166.41)
グロンズ	545	194.08	(162.49)
FU->	4,910	235.00	(179.28)
アローズド	203	157.59	(179.26)
10	0		()
OAJ 実験論文・ライセンス村	3,235	159.11	(108.67)
DOAJ 刺動論文・ライセンスな	52	195.33	(1(2.25)
Fの株 GA ジャーナル開始論文・ ライセンス付	82	142.67	(110.41)
その株 GA ジャーナル開始協文・ ライマンスなし	235	136.35	(93.89)
リポジトラマ OA である論文	8,634	196.51	(154.62)
観89ポジ>9で OA である油 2	8,351	198.01	(154.14)
WRU がジトリル外のリポジト リマ OA である後文	5,418	178.33	(119.68)
瞬間りがジトリとその作りポジ トリで OA である誰文	5,135	179.77	(116.74)
AC AGE 40 400 (1100) (110	2,379	247.75	(205.74)



Maeda (2020)

前半のまとめと課題

- ・グリーンOA推進のための活動としては「学術雑誌論文提供依頼」が有効
- ・しかし…労力を要する「学術雑誌論文提供依頼」の普及は困難
- ・「学術雑誌論文提供依頼」の省力化を可能にするJCのサポート機能が必要





日本の状況

NII RCOS

人文系研究者からの反発

「研究助成金と連動させて、APCに基づくゴールド OAを推進しようというPlan Sモデルは、STEM分野に は適切なものかもしれないが、人文科学分野は到底 受け入れられない。何故なら、この分野では、助成 金によって研究を行うことが一般的ではない。さら に、人文科学分野では、研究者が助成金を獲得する 機会が限られているので、グリーンOAや著者以外の 機関や団体などが出版費を負担するOAモデルの方が、 より適切な選択肢だ。」

Towards a Plan(HS)S: DARIAH's position on PlanS" DARIAH-EU. 2018-10-25. https://www.dariah.eu/2018/10/25/towards-a-planhss-dariahs-position-on-plans/





Accelerating Science through the collaboration of CERN and Japan

Jun Maeda Hokkaido University

CERN's background

Conseil **E**uropéen pour la **R**echerche **N**ucléaire



1949 WWII ended



1949 WWII ended 1954 CERN established, "Science for Peace"

Article II Purposes

 The Organization shall provide for collaboration among European States in nuclear research of a pure scientific and fundamental character, and in research essentially related thereto.
 The Organization shall have no concern with work for military requirements and the results of its experimental and theoretical work shall be published or otherwise made generally available.
 The Organization shall, in the collaboration referred to in paragraph 1 above, confine its activities to those set out in paragraphs 3, 4 and 5 of this Article

1949 WWII ended1954 CERN established, "Science for Peace"1989 World Wide Web invented



Place of Openness

Article II

Purposes

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paragraphs 3, 4 and 5 of this Article



Science for Peace

World Wide Web

1949 WWII ended 1954 CERN established, "Science for Peace" 1989 World Wide Web invented 2008 LHC started running



LHCb

ATLAS

1949 WWII ended 1954 CERN established, "Science for Peace 1989 World Wide Web invented THE CERN DATA CENTRE - Where data becomes knowledge 2008 LHC started running 2012 Higgs Boson discovered



LE CENTRE DE CALCUL – Des données à la connaissance



Experiments - Where/ physical collision becomes data





- Where knowledge becomes heritage

Data Centre

- Where data becomes knowledge

THE CERN DATA CENTRE – Where data becomes knowledge LE CENTRE DE CALCUL – Des données à la connaissance



INSPIRE

INSPIRE Collaboration

🗱 Fermilab 🥌 🔮 SLAC

- Main high energy physics (HEP) information platform: literature, author, institutions, jobs
- Since 2012; Updated 2020.3
- Freely available
- Run by 5 partners
- 50000 active users
- 13000000 bibliographic records
 - arXiv preprints (97%)
 - Published papers (60% of arXiv \rightarrow 40% arXiv records)
 - Theses
 - Conference proceedings
- 120000 author records
- 23000000 citations
- 200000 searches / day

Discover High-Energy Physics content

Authors

INSPIRE is a trusted community hub that helps researchers to share and find accurate scholarly information in high energy physics.

Jobs

Conferences

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Literature

How to Search

INSPIRE supports the most popular SPIRES syntax operators and free text searches for searching papers.

SPIRES free text

Search by	Use operators	Example
Author name	a, au, author, name	a witten
Title	t, title, ti	t A First Course in String Theory
Collaboration	cn, collaboration	cn babar
Number of authors	ac, authorcount	ac 1->10
Citation number	topcite, topcit, cited	topcite 1000+

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	proceedings	24	e-Print: 1	912 13450 [h	ien-thl								



Author disambiguation

J. Maeda

- Maeda Jiro (前田次郎、二郎、二朗)
- Maeda Jin (前田 陣、仁)
- Maeda Jun (前田 純、淳、潤)
- Maeda Jungoro
 - (前田 淳五郎、潤五郎)

Japan can help where INSPIRE needs help

Friend in need is a friend indeed, isn't it?

The author disambiguation problem

 To be useful, one profile should contain all papers of one single author

Moskovic (2018)

- Easy case: only one "Moskovic, M."
- Hard case: "Zhang, J."

72	J.Zhang.8	Zhang, Jingxi	Recent Papers
73	J.Zhang.24	Zhang, Juyong	Recent Papers
74	J.Zhang.14	Zhang, Jiehao	Recent Papers
15	J.Zhang.34	Zhang, Juping	Recent Papers
76	J.Zhang.1	Zhang, Jianfu	Recent Papers
77	J.Zhang.47	Zhang, Junwet	Recent Papers
78	J.Zhang.71	Zhang, Junjie	Recent Papers
79	J.Zhang.44	Zhang, Jingye	Recent Papers
30	J.Zhang.29	Zhang, Jifang	Recent Papers
81	Jinlong.Zhang.1	Zhang, Jinlong	Recent Papers

Disambiguating authors

 Solving this requires lots of work from INSPIRE staff



 Good news, you can help make INSPIRE better!



SCOAP3: Curation for better cost estimation



INSPIRE Collaboration



Accurate author records to support users' demand

Here is a graphical representation of our findings:



INSPIRE Curation in Practice

Let's see how it works...

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Author Profile Curation

v I	Personal Info			
	* Given Names:	Jun		
	* Family Name:	Maeda		
	* Display Name:	Jun Maeda	* Status:	Active
	Native Name:	前田隼	ORCID (2):	orcid.org/ 0000-0000-0000
			✓ Personal Websites	
	Alternate Name:	Names the archabl	Websites:	http://researchmap.jp/
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Japan's HEP records

2018-2019: 5945 papers

The issue is that INSPIRE needs

- native names
- e-mail addresses
- KAKEN IDs

for Japanese author disambiguation

Comparison of INSPIRE & JAIRO Cloud



Feedback

Feedback

Title:	CP-odd Higgs boson production in ey collisions	
Authors:	Sasaki, Ken Uematsu, Tsuneo	
Author's alias:	植松, 恒夫	
Keywords:	CP-odd Higgs production Two-photon fusion	Kyoto U.
	Transition form factor eγ-collisions	Repository
Issue Date:	10-Jun-2018	
Publisher:	Elsevier BV	
Journal title:	Physics Letters B	
Volume:	781	
Start page:	290	
End page:	294	
Abstract:	We investigate the CP-odd Higgs boson production v appear in the Two-Higgs Doublet Models (2HDM) as a special case. The scattering amplitude for $e\gamma \rightarrow eA^\circ$ when eA° boson is rather light and tan β is not large. The differential cross section for the A° production is	ia two-photon processes in eγ collisions. The CP-odd Higgs boson, which we denote a a minimal extension of Higgs sector for which the Minimal Supersymmetric Standard Mod is evaluated at the electroweak one-loop level. The dominant contribution comes from to There are no contributions from the W-boson and Z-boson loops nor the scalar top-qu a analyzed.
Rights:	© 2018 The Author(s). Published by Elsevier B.V. Th by SCOAP ³ .	is is an open access article under the CC BY license (http://creativecommons.org/licens
URI:	http://hdl.handle.net/2433/232996	
DOI(Published Version):	10.1016/j.physletb.2018.04.005	
Appears in Collections:	Journal Articles	

CP-odd Higgs boson production in eγcollisions

File / Name	License
2018PLB781(2018)290.pdf	
2018PLB781(2018)290.pdf (649.8KB) [170 downloads]	
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アイテムタイプ	学術雑誌論文 / Journal Article
言語	英語
キーワード	CP-odd Higgs production, Two-photon fusion, Transition form factor, eq-collisions
著者	Sasaki Ken Uematsu Tsuneo
著者所属	Dept. of Physics, Faculty of Engineering, Yokohama National University Institute for Liberal Arts and Sciences, Kyoto University, Maskwa Institute, Kyoto Sangyo University
抄録	We investigate the CP-odd Higgs boson production via two-photon processes in eycollisions. The CP-odd Higgs boson, which we deappear in the Two-Higgs Doublet Models (2HDM) as a minimal extension of Higgs sector for which the Minimal Supersymmetric S special case. The scattering amplitude for $e_{Y} \rightarrow e_{A0}$ is evaluated at the electroweak one-loop level. The dominant contribution come when A0boson is rather light and tan β is not large. There are no contributions from the W-boson and Z-boson loops nor the scalar differential cross section for the A0production is analyzed.
雑誌名	Physics Letters B
ö	781 Yokohama Nat'l. U.
ページ	290 - 294
発行年	2018-06-10 Repository
ISSN	03702693
書誌レコードID	AA11537044
DOI	info:doi/10.1016/j.physletb.2018.04.005
権利	©2018 The Author(s). Published by Elsevier B.V. This is an open access article under the CC BY license (http://creativecommons. Funded by SCOAP3.
著者版フラグ	publisher
出版者	Elsevier

Mission

- Providing novel insight to realise <u>remote curation</u> from Japan
- Finding the key issue and solutions

by

- Proposing new model (beneficial for both)
- Determining how Japan can collaborate with INSPIRE curation (author disambiguation)

Curation "through" JAIRO Cloud Let's see if it works...



Advantages • Curator friendly

Disadvantages

System Complexity
Non-real time curation
Gap of metadata richness

Curation collisions

· Convincing Story (for Japan)

IRs

Curation

Article

Curation

Author Profile

26 Eeb 2020 Maeda@CERN

Curation

Trial & error

Info. from French model (IN2P3)

Based on 2010-2016 experience:

5000 papers/year 600 affiliations

2 FTE curators
1 coordinating curator (80 % of time for curation)
8 curators (10-20 % of time for curation)
(If more effective, 3-4 curators are reasonable (30 % of time for curation))

Curators use their own ORCID to login to INSPIRE Some guidelines are translated into French

Last but not least, curators understand what they are serving for. It's not simply for their own repository but for accelerating the science itself (by help HEP community with well maintained database, i.e., INSPIRE)





Circulation model

- Curation of INSPIRE records through JAIRO Cloud
- Metadata of new HEP papers pushed into Japan's IRs



Experiments

INSPIRE

INSPIRE beta

Metadata

Curation

Data Centre THE CERN DATA CENTRE - Where data becomes knowledge Das données à la connaissance

LE CENTRE DE CALCUL - Des données à la connaissance

Curators' Competencies

OK: without HEP background OK: new to curation



INSPIRE Collaboration













Looking at Future

Positive Side Effects (Future Application)



Curators = Librarians

We can accelerate science!

Last but not least, I am grateful to NII, CERN, and all of those involved to make this visit happen.

At the same time, it is of my great responsibility to make this opportunity the first step of a ladder for a future collaboration between NII and CERN, altogether for accelerating science.



