

# Introduction to digital libraries

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CERN

ASP 2012  
Kumasi, Ghana, Aug 3, 2012

“Is the eBook the end of the library?”

“Technological Change, Universal  
Access and the End of the Library”

...

Do we still need libraries in the  
Google era?

# What is a library?

Oxford Reference Online:

A building or room containing collections of books, periodicals, and sometimes films and recorded music for use or borrowing by the public or the members of an institution



# But it is much more!

Not only a physical space housing books

- public workspace
- Information
- services
- ...



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# ... and cultural events!



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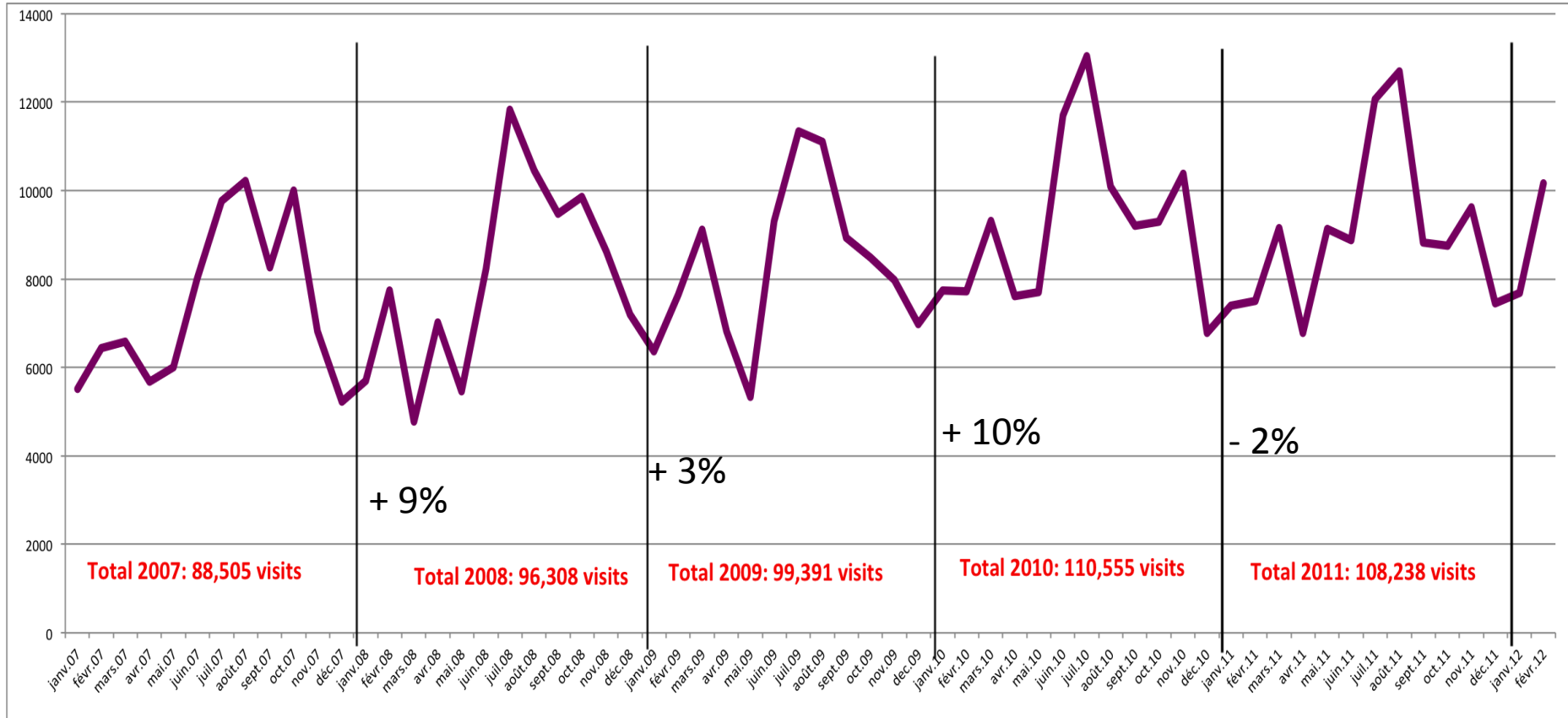




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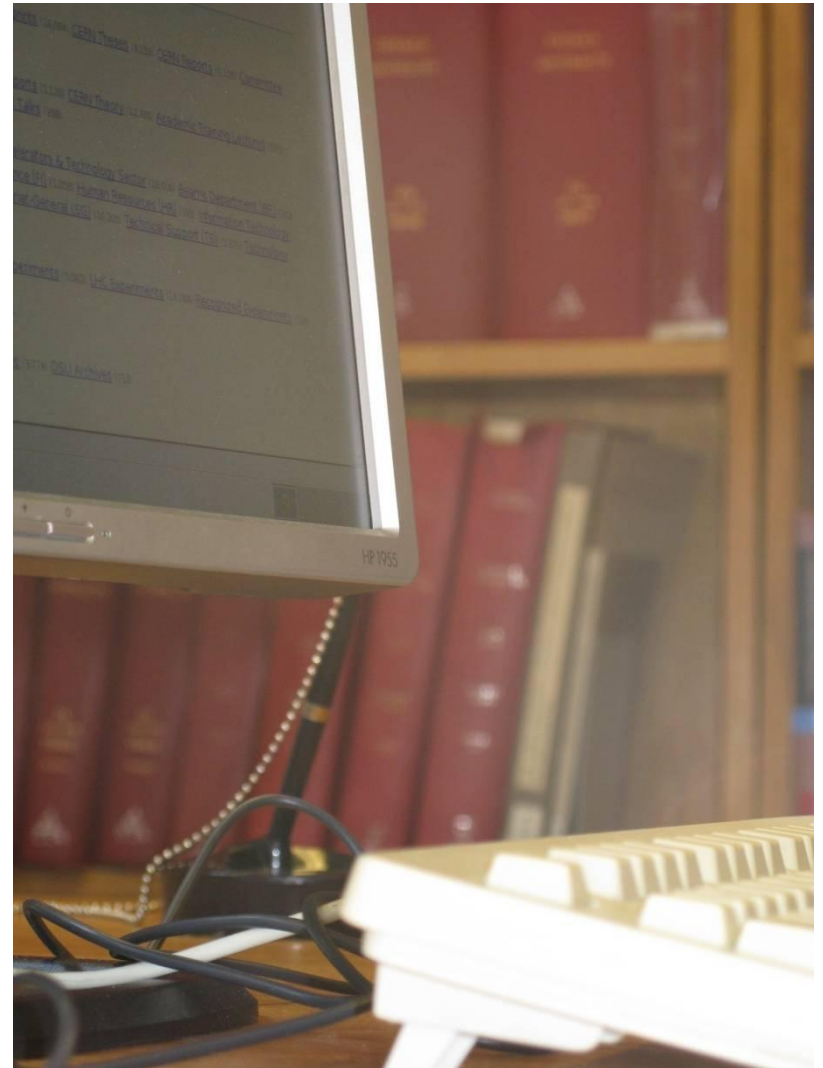
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# Libraries in the digital era

Libraries have since long embraced the digital age:

- E-books
- E-journals
- E-prints
- Multimedia
- Online information retrieval





# Digital library

Wikipedia:

a library in which collections are stored in digital formats (as opposed to print, microform, or other media) and accessible by computers. The digital content may be stored locally, or accessed remotely via computer networks. A digital library is a type of information retrieval system.

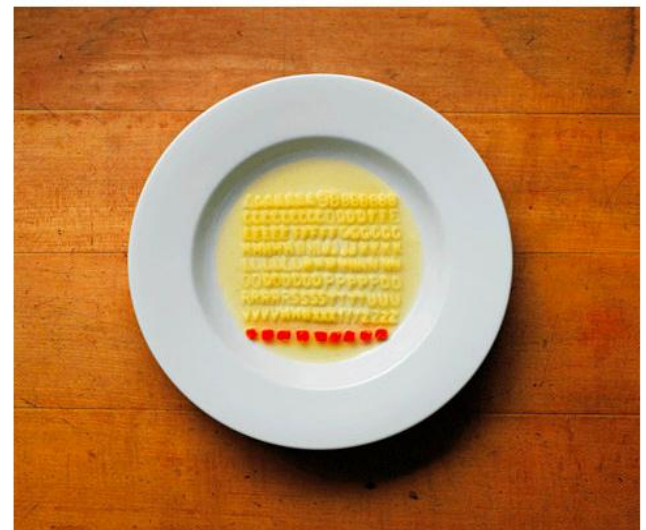
# Digital library vs web

## Web:

- grows organically
- low archival and management characteristics

## Library:

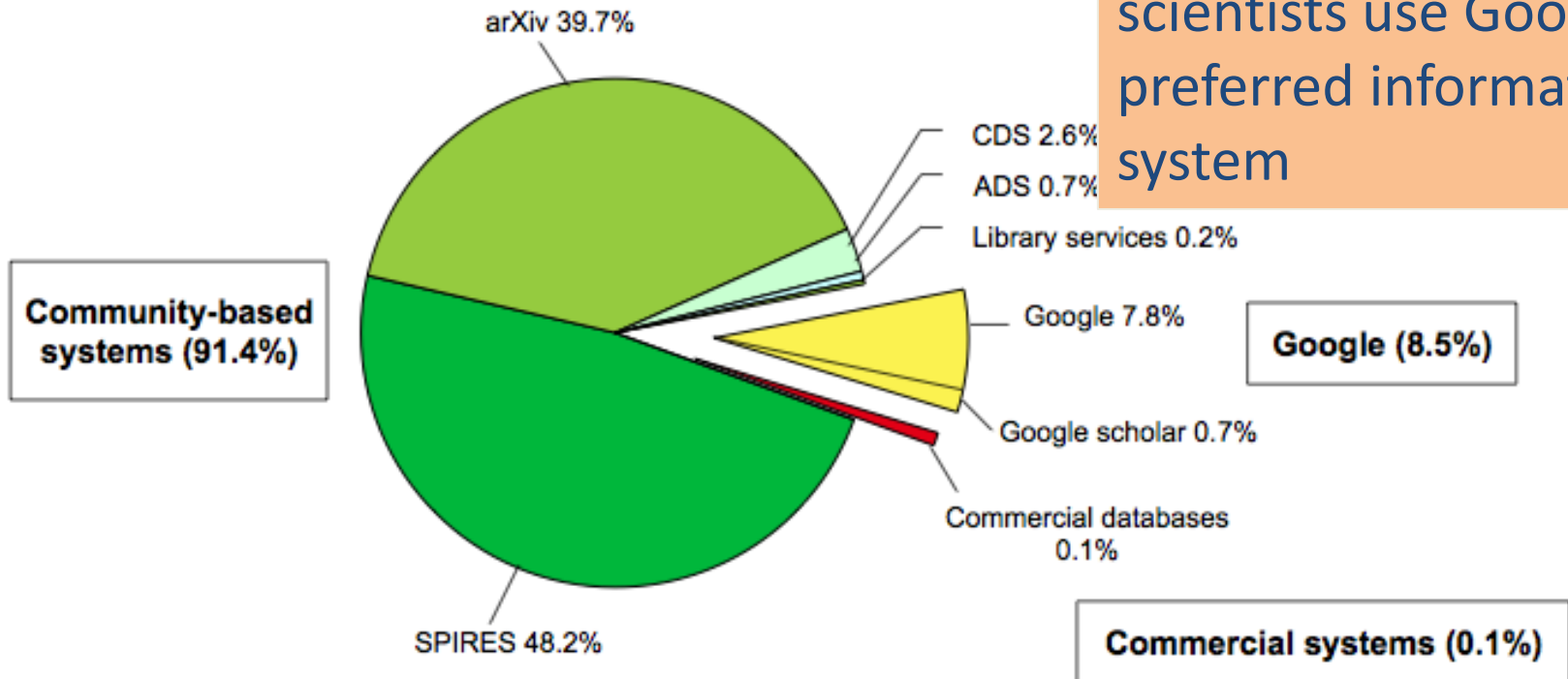
- controlled input
- targeted customers
- “the right information to the right user at the right time”



Urs Wehrli: Die Kunst aufzuräumen

# Where do HEP scientists search for information?

Which HEP information system do you use the most?



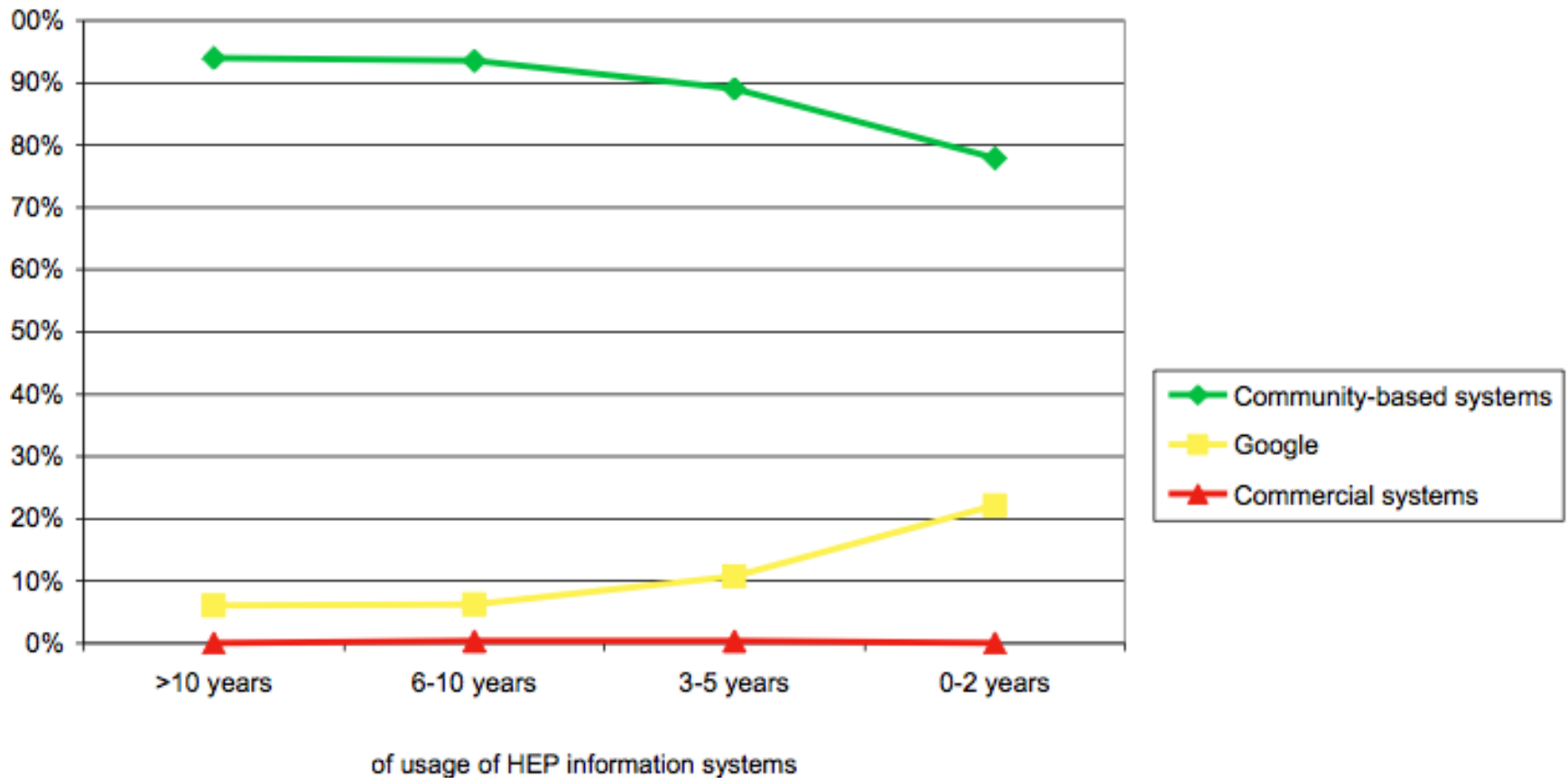
**2007 survey:**

Only 9% of HEP scientists use Google as preferred information system

arxiv:0804.2701v2, Gentil-Beccot et al.

# Age dependent information strategies

Which HEP information system do you use the most?



# Library catalogues in search engines

thesis leonid rivkin damping ring for the slac linear collider

Ungefähr 73 Ergebnisse (0.62 Sekunden)

## [Damping Ring for the SLAC Linear Collider](#)

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von LZ Rivkin - 1986 - Zitiert durch: 4 - Ähnliche Artikel

**Damping Ring** for the **SLAC Linear Collider**. Authors: **Rivkin, Leonid** Zinovy.  
Affiliation: AA(CALIFORNIA INSTITUTE OF TECHNOLOGY.) Publication: **Thesis** (PH

...

## [DAMPING RING FOR THE SLAC LINEAR COLLIDER - INSPIRE-H...](#)

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1 Jan 1986 – **Damping Ring** For The **Slac Linear Collider**. **Leonid Zinovy Rivkin**  
(Caltech). 1986 130 pp. CALT-68-1324. Note: Ph.D. **Thesis** Keyword(s): ...

## [Damping ring for the SLAC linear collider - SLAC Research Library ...](#)

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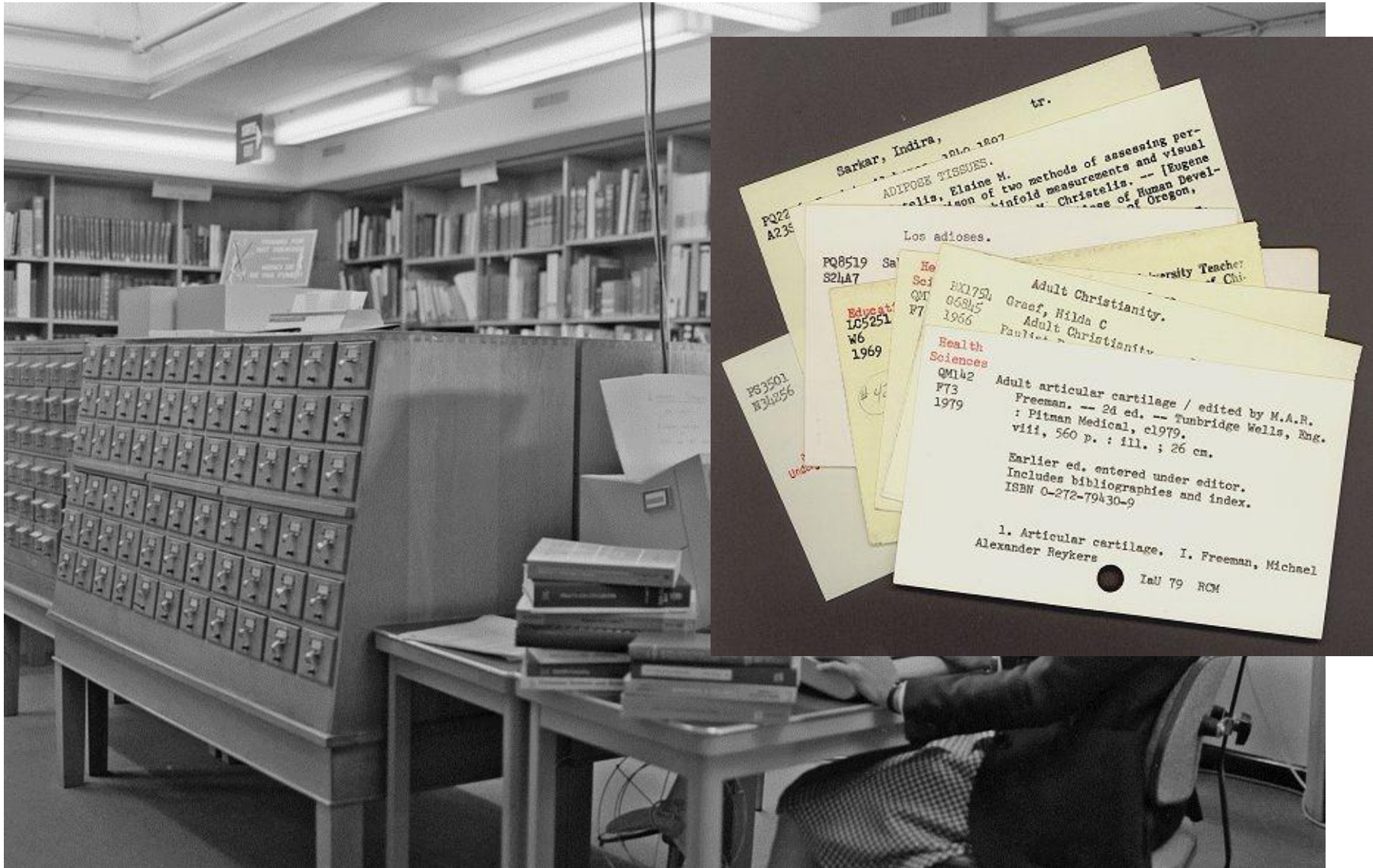
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- acquisition
- filtering of information
- organization of knowledge
- preservation

but often in a radically different form



# Library catalogue: then...



# ...and now

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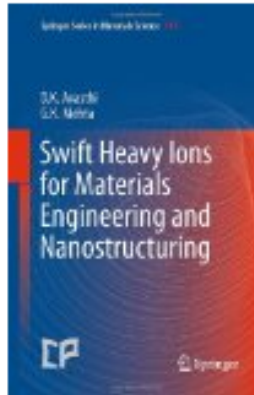
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### Book

Title	<b>Swift heavy ions for materials engineering and nanostructuring</b>
	
Author(s)	<a href="#">Avasthi, Devesh Kumar</a> ; <a href="#">Mehta, Girijesh Kumar</a>
Imprint	Heidelberg : Springer, 2011. - 280 p.
Series	( <a href="#">Springer series in materials science</a> ; 145)
Subject code	<a href="#">620.22</a> ; <a href="#">537.534</a>
Subject category	Engineering
ISBN	9789400712287 (This book at <a href="#">Amazon</a> ) (print version, hardback) 9789400712294 (This book at <a href="#">Amazon</a> ) (electronic version)
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- no physical space constraints
- access from everywhere
- multitude of devices
  - phones, tablets, readers
- retrievability
  - search engines
- organize own bibliographies
  - Mendeley...
- ...

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## 1. Wilson loops in $(p+1)$ -dimensional Yang-Mills theories using gravity/gauge theory correspondence.

Somdeb Chakraborty, Shibaji Roy (Saha Inst.). Mar 2011. 16 pp.

Published in *Nucl.Phys.* **B850** (2011) 463-476

e-Print: [arXiv:1103.1248](#) [hep-th]

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... 6, 7, 8]. In strongly coupled gauge theories of interacting **quark-gluon plasma** Wilson loops can be related to various measurable quantities in...

... to the static quark-antiquark potential [9] in a moving **quark-gluon plasma** On the other hand the expectation value of a particular...

... a dipole moving with an arbitrary velocity through the hot **quark-gluon plasma** including the screening length 11 12 13 14 as well...

...  $v$ . In this frame the dipole is static and the **quark-gluon plasma** is moving with velocity  $v$  in the negative  $x_p$  direction...

... and can be related to the observables of **quark-gluon plasma** obtained in heavy ion experiments We have considered...



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*Proof.* We have just shown that  $\Psi$  gives a bijection between  $\mathbb{RP}^2/S_3$  and  $\mathcal{M}$ , and we can give  $\mathcal{M}$  a topology which makes  $\Psi$  a homeomorphism between  $\mathcal{S}_m/\sim$  and  $\mathbb{R}$

[arXiv.org](#) > [hep-th](#) > [arXiv:0906.4558](#)

High Energy Physics - Theory

## Gravitational instantons, self-duality and geometric flows

F. Bourliot, J. Estes, P.M. Petropoulos, Ph. Spindel

(Submitted on 25 Jun 2009)

We discuss four-dimensional "spatially homogeneous" gravitational instantons. These are self-dual solutions of Euclidean vacuum Einstein equations with potentially non-vanishing cosmological constant. They are endowed with a product structure  $\mathbb{R} \times M_3$  leading to a natural foliation into three-dimensional subspaces evolving in Euclidean time. For a large class of three-dimensional subspaces, the dynamics coincides with that of the three-dimensional homogeneous slice, driven by the Ricci tensor plus an  $so(3)$  gauge connection. The metric on the three-dimensional slice is related to the vielbein of the three-dimensional subspace, while the gauge field is inherited from the anti-self-dual component of the Levi-Civita connection.

Comments: 14 pages  
Subjects: **High Energy Physics - Theory (hep-th)**  
Report number: CPH.T-RR038.0409  
Cite as: [arXiv:0906.4558v1 \[hep-th\]](#)

### Submission history

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[v1] Thu, 25 Jun 2009 18:09:11 GMT (18kb)

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Link back to: [arXiv](#), [form interface](#), [contact](#).

- [1] P. Baird and L. Danielo. Three-dimensional Einstein manifolds. *Math. Ann.* 608 (2007), 65–91.
- [2] F. Bourliot, J. Estes, P. M. Petropoulos. Geometric flows. Preprint at [arXiv:0906.4558](#)
- [3] A. L. Besse. Einstein manifolds. *Ergebnisse der Mathematik und Related Areas (3)*, 10.
- [4] X. Cao, J. Guckenheimer, and L. Saloff-Coste. Geometric flows on  $SL(2, \mathbb{R})$ . Preprint at [arXiv:0906.4558](#).
- [5] X. Cao, Y. Ni, and L. Saloff-Coste. Cross curvature pinching. *Pacific J. Math.* 236 (2008), no. 2, 263–281.
- [6] X. Cao and L. Saloff-Coste. Cross curvature pinching. Preprint at [arXiv:0805.3380v1 \[math.DG\]](#).

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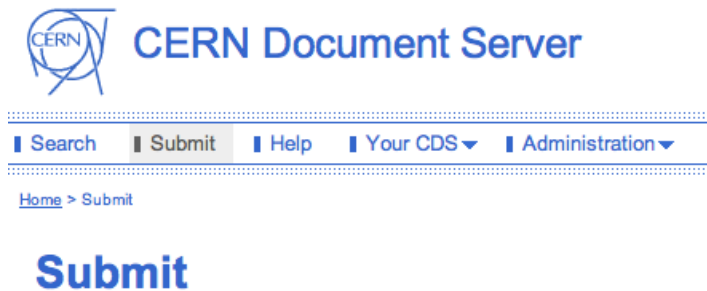
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seamless navigation

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Problem: link rot

One remedy: persistent identifiers

Problem: link rot

One remedy: persistent identifiers

Most well-known: DOI

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  - alphanumeric string “prefix/suffix”
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# Multiple imputation in quantile regression

Ying Wei

Yanyuan Ma

Raymond J. Carroll

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Biometrika (2012)  
doi: 10.1093/biomet/ass007  
First published online: March 20,  
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## Abstract

---

We propose a multiple imputation estimator for parameter estimation in a quantile regression model when some covariates are missing at random. The estimation procedure fully utilizes the entire dataset to achieve increased efficiency, and the resulting coefficient estimators are root- $n$  consistent and asymptotically normal. To protect against possible model misspecification, we further propose a shrinkage estimator, which automatically adjusts for possible bias. The finite sample performance of our estimator is investigated in a simulation study. Finally, we apply our methodology to part of the Eating at American's Table Study data, investigating the association between two measures of dietary intake.

---

# Multiple imputation in quantile regression

Ying Wei

Yanyuan Ma

Raymond J. Carroll

+ Author Affiliations

Biometrika (2012)  
doi: 10.1093/biomet/ass007  
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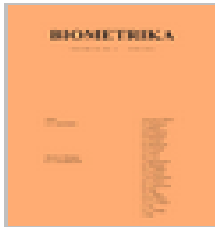
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## Abstract

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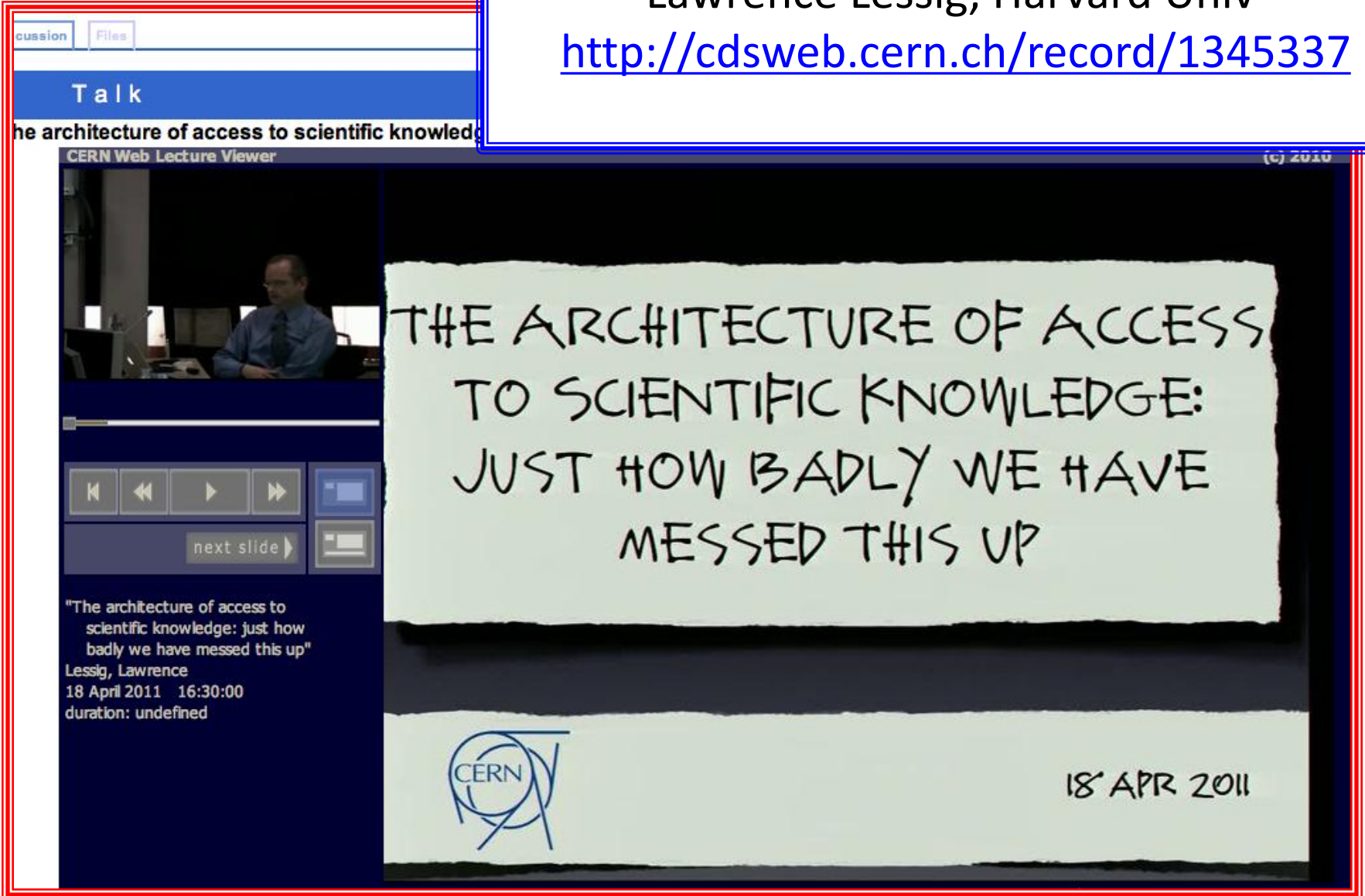
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# Open access: Who profits?

## **Funding bodies/policy makers:**

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# Open access: Who profits?

## **Professionals:**

- E.g. medical doctors or teachers can get informed about the most recent research in their field of work



# Open access: Who profits?

## **Libraries**

- can offer access to a wider range of journals, books and other material to their users

# Open access: Who profits?

## **Public:**

- Journalists and interested citizens (e.g. patient associations) gain easy access to research results
- Citizen science:  
Scientific research conducted by nonprofessionals

# What does OA mean exactly?

- Not everything is allowed!
- Different definitions and perceptions
  - Depending on who's talking
- There may be restrictions on how you can use the material
  - Consent of the author or copyright-holder
- Most restrictive: Free to read
- Most liberal:
  - The original authors have to be credited for their work by quoting or referencing appropriately
  - Good scientific practice



creative commons copyright licenses define admissible use of material:

“provide a simple, standardized way to give the public permission to share and use your creative work”

<http://creativecommons.org>

# Creative Commons licenses:

From “all rights reserved” to “some rights reserved”

	<b>Attribution</b>	CC BY	<i>Most Free</i>
 	<b>Attribution - ShareAlike</b>	CC BY-SA	
 	<b>Attribution - No Derivatives</b>	CC BY-ND	
 	<b>Attribution - Non-Commercial</b>	CC BY-NC	
  	<b>Attribution - Non-Commercial - Share Alike</b>	CC BY-NC-SA	
  	<b>Attribution - Non-Commercial - No Derivatives</b>	CC BY-NC-ND	<i>Least Free</i>

# CC0

dedicates a work to the public domain  
by waiving all rights under copyright  
law

# Creative commons licensing

Globally valid



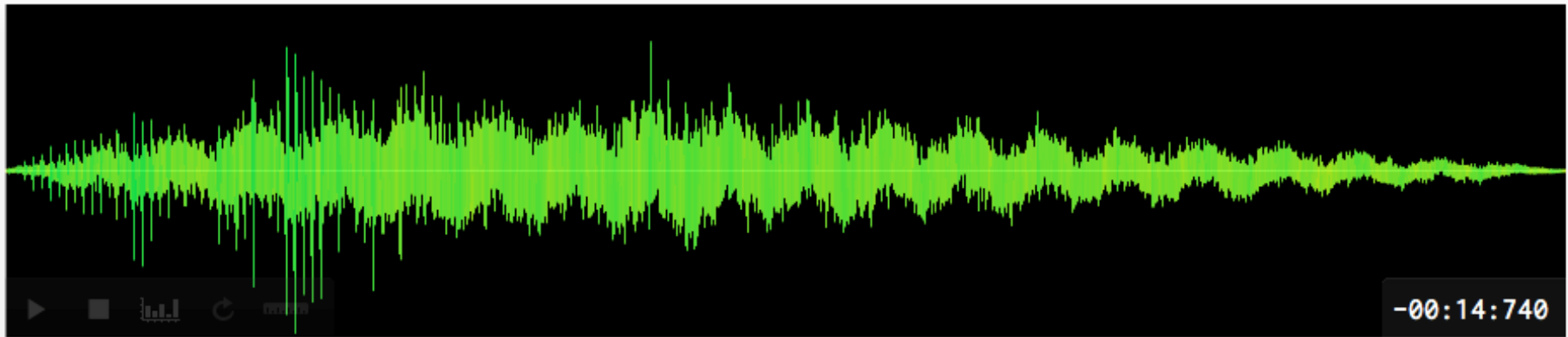
# Creative commons licensing

Applicable to all works falling under copyright:

- Books, plays, movies, music, photos, blogs, websites, ...

Helicopter Flyover

<http://www.freesound.org/people/doctor567/sounds/161579/>



**doctor567**

July 22nd, 2012

Downloaded  
3 times

Login to download

Field recording of a helicopter flyover followed by the sound of crickets. Recorded with an SM7.

crickets flyover Field-recording Doppler-Effect Helicopter



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# CERN Yellow Reports license

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(<http://creativecommons.org/licenses/by/3.0/>) in order to permit its wide dissemination and use.

# OA: Gold vs Green Road

## Gold Road:

Author publishes in an OA journal

## Green Road:

Author self-archives on the web

# Gold OA

## Authors publish in an OA journal

- Hybrid journals:
  - Publish both OA and non-OA articles
- Author pays model:
  - Authors or institutions have to pay for an article to be OA
- Delayed open access:
  - Articles become OA after an embargo period of e.g. 1 year

# Hybrid journal

## **American Physical Society phases out Free-to-Read program in lieu of Creative Commons licensing**

Published on February 16, 2011 at 6:50 AM

As of 15 February 2011, authors in most Physical Review journals have a new alternative: to pay an article-processing charge whereby their accepted manuscripts will be available barrier-free and open access on publication. These manuscripts will be published under the terms of the Creative Commons Attribution 3.0 License (CC-BY) (<http://creativecommons.org/licenses/by/3.0/>), the most permissive of the CC licenses, granting authors and others the right to copy, distribute, transmit, and adapt the work, provided that proper credit is given. This new alternative is in addition to traditional subscription-funded publication; authors may choose one or the other for their accepted papers.

# Directory of Open Access Journals



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**Browse by subject**

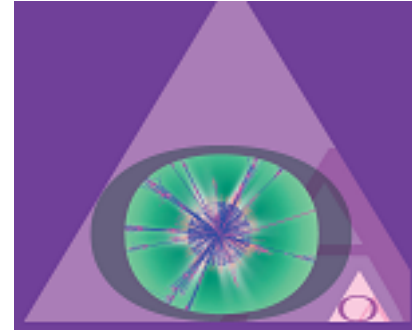
[Expand Subject Tree](#)

<http://www.doaj.org>

# SCOAP3

Sponsoring Consortium for Open Access  
Publishing in Particle Physics

<http://scoap3.org/>



- Aims to convert main HEP journals to OA
- Worldwide consortium of libraries and funding bodies
- Pays journals for peer-review service
- Financed by redirecting subscription money

# SCOAP3: Status

- Tender process just finished
- Start date: 2014
- Journals to be fully converted:
  - Physical Review D
  - Physics Letters B
  - Nuclear Physics B
  - Advances in High Energy Physics
  - European Physical Journal C
  - JHEP

# Green road

## Self-archiving of documents on the web

- Personal webpage
- Institutional repositories
- Subject repositories



# Institutional repositories

## Capture scientific output of an institution

- Theses
- Working papers/preprints
- Reports
- Photos
- Videos
- ...

# CERN Document Server (CDS)



CERN Document Server

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Search 1,197,394 records for:

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## Narrow by collection:

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  - [Theses](#) (18,227) [Reports](#) (5,635) [CERN Notes](#) (28,163)
  - [Committee Documents](#) (23,729)
- [Books & Proceedings](#) (82,473)
  - [Books](#) (54,593) [Proceedings](#) (17,503)
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  - [CERN Annual Reports](#) (2) [CERN Yellow Reports](#) (1,146) [CERN Student Lectures](#) (832) [CERN General Talks](#) (1,879)
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- [CERN Experiments](#) (35,088)
  - [LHC Experiments](#) (28,391) [Fixed Target Experiments](#) (172)
  - [Experiments](#) (297)
- [CERN R&D Projects](#) (2,233)
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- [CERN Archives](#) (34,547)
  - [CERN Archives](#) (30,026) [Pauli Archives](#) (3,808) [DSU Archives](#) (613)

<http://cdsweb.cern.ch>

**CERN Library collections:**

(e)books, (e)journals,

(e)standards

**Institutional repository:**

preprints, articles, theses

, multimedia

# What's allowed?

- Many journals endorse self-archiving by authors of preprint and/or postprint versions
- Preprint:
  - Article draft before peer review
- Postprint:
  - Article draft after peer review
- SHERPA RoMEO:
  - Index of publisher policies

# SHERPA RoMEO

Journal: **African Development Review** (ISSN: [1017-6772](#))

Publisher: **Blackwell Publishing Ltd.**

These summaries are for the publishers *default* policies and changes or exceptions can often be negotiated by authors.  
*All information is correct to the best of our knowledge but should not be relied upon for legal advice.*

<b>Publisher:</b>	<a href="#">Blackwell Publishing</a>
<b>Pre-print:</b>	✓ author can archive pre-print (ie pre-refereeing)
<b>Post-print:</b>	✗ subject to Restrictions below, author can archive post-print (ie final draft post-refereeing)
<b>Restrictions:</b>	<ul style="list-style-type: none"><li>• Some journals impose embargoes typically of 6 or 12 months, occasionally of 24 months</li><li>• no listing of affected journals available as yet</li></ul>
<b>Conditions:</b>	<ul style="list-style-type: none"><li>• Publisher version cannot be used</li><li>• On author or institutional or subject-based server</li><li>• Server must be non-commercial</li><li>• Publisher copyright and source must be acknowledged with set statement ("The definitive version is available at <a href="http://www.blackwell-synergy.com">www.blackwell-synergy.com</a>")</li><li>• Articles in some journals can be made Open Access on payment of additional charge</li><li>• See Wiley-Blackwell entry for articles after February 2007</li></ul>

<http://www.sherpa.ac.uk/romeo/>

# Subject repositories

organized around a specific field or discipline

- Broadband
  - Nature Precedings <http://precedings.nature.com/>
- Physics/Mathematics/Computer science...
  - arXiv <http://arxiv.org>
- Astronomy/Physics
  - Astrophysics Data System (ADS)  
<http://adswww.harvard.edu/>
- High energy physics
  - INSPIRE <https://inspirehep.net>




Open access to 765,067 e-prints in Physics, Mathematics, Computer Science, Quantitative Biology, Quantitative Finance and Statistics

Subject search and browse:

24 Apr 2012: New [arXiv Membership Model](#)

29 Mar 2012: New "culturomics" [arXiv analysis tool available](#)

See cumulative "What's New" pages. Read [robots beware](#) before attempting any automated download

## Physics

- [Astrophysics \(astro-ph new, recent, find\)](#)  
includes: [Cosmology and Extragalactic Astrophysics](#); [Earth and Planetary Astrophysics](#); [Galaxy Astrophysics](#); [High Energy Astrophysical Phenomena](#); [Instrumentation and Methods for Astrophysics](#); [Solar and Stellar Astrophysics](#)
- [Condensed Matter \(cond-mat new, recent, find\)](#)  
includes: [Disordered Systems and Neural Networks](#); [Materials Science](#); [Mesoscale and Nanoscale Physics](#); [Other Condensed Matter](#); [Quantum Gases](#); [Soft Condensed Matter](#); [Statistical Mechanics](#); [Strongly Correlated Electrons](#); [Superconductivity](#)
- [General Relativity and Quantum Cosmology \(gr-qc new, recent, find\)](#)
- [High Energy Physics - Experiment \(hep-ex new, recent, find\)](#)
- [High Energy Physics - Lattice \(hep-lat new, recent, find\)](#)
- [High Energy Physics - Phenomenology \(hep-ph new, recent, find\)](#)
- [High Energy Physics - Theory \(hep-th new, recent, find\)](#)
- [Mathematical Physics \(math-ph new, recent, find\)](#)
- [Nuclear Experiment \(nucl-ex new, recent, find\)](#)
- [Nuclear Theory \(nucl-th new, recent, find\)](#)
- [Physics \(physics new, recent, find\)](#)  
includes: [Accelerator Physics](#); [Atmospheric and Oceanic Physics](#); [Atomic Physics](#); [Atomic and Molecular Clusters](#); [Biological Physics](#); [Chemical Physics](#); [Classical Physics](#); [Computational Physics](#); [Data Analysis, Statistics and Probability](#); [Fluid Dynamics](#); [General Physics](#); [Geophysics](#); [History and Philosophy of Physics](#); [Instrumentation and Detectors](#); [Medical Physics](#); [Optics](#); [Physics Education](#); [Physics and Society](#); [Plasma Physics](#); [Popular Physics](#); [Space Physics](#)
- [Quantum Physics \(quant-ph new, recent, find\)](#)

## Mathematics

## HEP Search

### High-Energy Physics Literature Database

Use "find " for SPIRES-style search ([other tips](#))

Brief format

Search

[Easy Search](#)  
[Advanced Search](#)

[find j "Phys.Rev.Lett.,105"](#) :: [more](#)

#### HOW TO SEARCH

SPIRES syntax is (mostly) supported (requires "find")

[find a richter, b and t quark and date > 1984](#)

[find j phys.rev.,D50,1140 or j jhep,0903,112](#)

[find eprint arxiv:1007.5048](#) (Note the plots available on the detailed record)

[find fulltext "quark-gluon plasma"](#) (Note new "fulltext" operator)

[find a ellis and refersto a witten](#) (Note "refersto")

[find a kane and citedby title SUSY and topcite 200+](#) (Note "citedby")

New techniques:

[1985 richter quark multiplicity](#)

[arXiv:1007.5048](#)

[citedby:author:ellis -refersto:author:witten](#)

[author:randall | author:sundrum cited:450->1350](#)

Additional Help:

[More search tips and full help](#)

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#### INSPIRE NEWS

2012-04-26 Good bye SPIRES!  
INSPIRE is now replacing  
SPIRES after SPIRES frontend  
shutoff. Read more on our blog:  
<http://t.co/vheWS3US>  
2012-04-17 Citation curation moved





## [The SAO/NASA Astrophysics Data System](#)

[Search](#) [Browse](#) [Help](#)

### **Welcome to the Digital Library for Physics and Astronomy**



This site is hosted by the  
[High Energy Astrophysics Division](#) at the  
[Harvard-Smithsonian Center for Astrophysics](#)



The SAO/NASA Astrophysics Data System (ADS) is a Digital Library portal for researchers in Astronomy and Physics, operated by the Smithsonian Astrophysical Observatory (SAO) under a NASA grant. The ADS maintains three bibliographic databases containing more than 9.6 million records: Astronomy and Astrophysics, Physics, and arXiv e-prints. The main body of data in the ADS consists of bibliographic records, which are searchable through [highly customizable query forms](#), and full-text scans of much of the astronomical literature which can be [browsed or searched](#) via our full-text search interface. Integrated in its databases, the ADS provides access and pointers to a wealth of external resources, including electronic articles, data catalogs and archives. We currently have links to over 9.1 million records maintained by our collaborators.



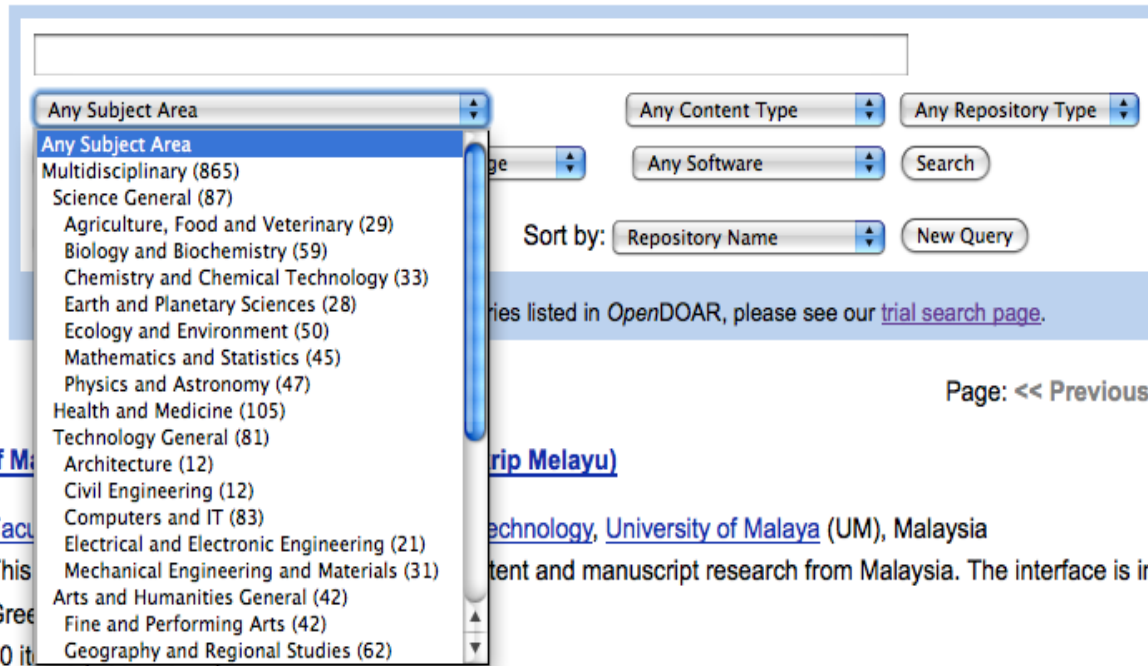
# Directory of Open Access Repositories

OpenDOAR

Directory of Open Access Repo  
Home | Find | Suggest | Tools | FAQ | About | C

Search or Browse for Repositories

[Recent Additions](#) 



The screenshot shows the OpenDOAR search interface. A search bar is at the top. Below it, there are several dropdown menus for filtering: 'Any Subject Area', 'Any Content Type', and 'Any Repository Type'. The 'Any Subject Area' dropdown is open, showing a list of subject areas with their respective counts: Any Subject Area, Multidisciplinary (865), Science General (87), Agriculture, Food and Veterinary (29), Biology and Biochemistry (59), Chemistry and Chemical Technology (33), Earth and Planetary Sciences (28), Ecology and Environment (50), Mathematics and Statistics (45), Physics and Astronomy (47), Health and Medicine (105), Technology General (81), Architecture (12), Civil Engineering (12), Computers and IT (83), Electrical and Electronic Engineering (21), Mechanical Engineering and Materials (31), Arts and Humanities General (42), Fine and Performing Arts (42), and Geography and Regional Studies (62). To the right of the dropdowns are buttons for 'Search' and 'New Query'. Below the search filters, there is a 'Sort by:' dropdown set to 'Repository Name'. A message states: 'Repositories listed in OpenDOAR, please see our [trial search page](#).' At the bottom right, there is a pagination control: 'Page: << Previous 1 2 3 4 5 6 7 8 9 10'.

Results 1 - 20 of 1463.

[MyManuskrip: Digital Library of Manuscripts](#)

Organisation: [Faculty of Technology, University of Malaya \(UM\), Malaysia](#)

Description: This repository contains content and manuscript research from Malaysia. The interface is in English.

Software: Green Scribe

Size: 50 items

<http://www.opendoar.org>

Includes more than 2140 academic repositories



# What about your own countries?

## Browse by Country

▲ [Up a level](#)

Export as Activity table

Export

[Graphical analysis](#) [Search Content](#)

- [Geoname Location](#) (56)
  - [Africa](#) (56)
    - [Algeria](#) (1)
    - [Botswana](#) (1)
    - [Cameroon](#) (1)
    - [Egypt](#) (5)
    - [Ethiopia](#) (2)
    - [Ghana](#) (4)
    - [Kenya](#) (4)
    - [Lesotho](#) (2)
    - [Mozambique](#) (2)
    - [Namibia](#) (1)
    - [Nigeria](#) (3)
    - [South Africa](#) (23)
    - [Sudan](#) (2)
    - [Tunisia](#) (1)
    - [Uganda](#) (1)
    - [Zimbabwe](#) (3)



per page.

Sort by:

To search the contents of the repositories listed in OpenDOAR, please see our [Content Search](#) page.

Results 1 - 2 of 2. [RSS1 Feed for this Query](#)

Page: &lt;&lt; Previous 1 Next &gt;&gt;

[knustspace](#)**Organisation:** [Kwame Nkrumah University of Science and Technology \(KNUST\)](#), Ghana**Description:** This site provides access to the research output of the institution. Many items are not available as full-text. The interface is in English. The site may be slow in downloading selected items.**OAI-PMH:** <http://dspace.knust.edu.gh:8080/oai/request>**Software:** DSpace**Size:** 4008 items (2012-06-21)**Subjects:** Multidisciplinary**Content:** Articles; References; Conferences; Theses**Languages:** English**Policies:** Metadata re-use policy explicitly undefined; Full data item policies explicitly undefined; Content policies explicitly undefined; Submission policies explicitly undefined; Preservation policies explicitly undefined**OpenDOAR ID:** 1649 , [Suggest an update for this record](#), *Missing data is needed for:* [Policies](#)Link to this record: <http://opendoar.org/id/1649/>[UGSpace \(University of Ghana Digital Collection\)](#)**Organisation:** [University of Ghana](#), Ghana**Description:** This site provides access to the collections of the institution. Users may set up RSS and Atom feeds to be alerted to new content. Collection includes works from the colonial era (1470-1958), including Dutch publications, Folio and Furley collections.**Software:** DSpace**Size:** 1216 items (2012-06-21)**Subjects:** History and Archaeology**Content:** Books; Special**Languages:** English; Dutch**Policies:** Metadata re-use policy explicitly undefined; Full data item policies explicitly undefined; Content policies explicitly undefined; Submission policies explicitly undefined; Preservation policies explicitly undefined**OpenDOAR ID:** 2430 , [Suggest an update for this record](#), *Missing data is needed for:* [OAI-PMH](#) & [Policies](#)Link to this record: <http://opendoar.org/id/2430/>

Page: &lt;&lt; Previous 1 Next &gt;&gt;

# What can you do yourself?

To make your work as visible as possible:

- Submit your paper to an OA journal
  - If one exists in your subject area
- Submit at the same time to arXiv
  - even your thesis
- Submit the article/postprint/preprint to your institutional repository
  - If you have one
  - Check out publisher's policy