

Open Access

- What is Open Access
- OA @ DESY
- SCOAP3

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What is Open Access (OA)



Make scientific literature and materials publicly available

- Freely accessible by anyone worldwide using an internet connection
- Free of most copyright and licensing restrictions
 - Consent of author or copyright holder
- Fully compatible with peer review
- ... But not free to produce (e.g. not costless)

Two types of OA

- Repositories and Archives
 - <http://arxiv.org>
 - <http://pubdb.desy.de>
- OA Journals
 - Physical Review Special Topics – Accelerators and Beams

(<http://www.earlham.edu/~peters/fos/brief.htm>)



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Repositories and Archives



- Repository: Online location for collecting and preserving the intellectual output of a research institution
 - Provide open access to institutional output by self-archiving
 - Store and preserve other institutional digital assets, including unpublished or otherwise easily lost ("grey") literature (e.g., theses or technical reports)
- Archive: Open access archives for e-prints
 - Discipline
 - Paul Ginsparg's <http://arxiv.org> (Cornell University)
 - Institution
 - DESY publication database

NB: Most journals permit authors to deposit pre- or post-prints in institutional repositories and/or archives (see below)



DESY Publication Database



With respect to the HGF PoF figures as well as the annual reports DESY must account for all publications

- A database solution to generate these figures has been implemented (see <http://pubdb.desy.de>)
- All publication lists etc. will be generated exclusively from data entered into this system
- The database allows the storage and retrieval of full-texts and thus serves as an institutional repository
- Open archive protocol for metadata harvesting (OAI-PMH) available in the near future
 - Interface to search engines (e.g. google scholar, ...)



Journals



SHERPA/RoMEO List (<http://www.sherpa.ac.uk/romeo.php>)

Permissions given as part of the publisher's copyright transfer agreement)

- RoMEO Colours
 - Green Publishers - can archive pre-print and post-print
 - AIP, APS, Elsevier ...
 - Blue publishers - can archive post-print (ie final draft post-refereeing)
 - Yellow publishers - can archive pre-print (ie pre-refereeing)
 - AUTHOR ANNEX !
 - Blackwell Publishing
 - White publishers - archiving not formally supported
 - AUTHOR ANNEX !

Prefer "Green" and "Blue" publishers !



Author Annex



- The publisher's copyright transfer agreement is a contract between publisher and author/copyright holder
- According to a decision of the DESY Directorate on August 25th, 2006
 - ... DESY (should) retains the right to make the article accessible in its latest version and in electronically readable form, e.g. in an institutional repository
- To carry this out authors may add the following Author Annex to their individual contracts with the publishers ("Yellow" and "White" publishers only)
 - "The foundation Deutsches Elektronen-Synchrotron shall be entitled to make the content of the article freely accessible to the general public on the internet or in some other form at the time of publication (alternatively 3 or 6 months after the article's publication)."
 - Without objection on the part of the publisher, this annex becomes an integral part of the contract and is thus valid



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SCOAP3

Sponsoring Consortium for Open Access Publishing in Particle Physics



- Initiated by CERN to publish all LHC articles in OA
- Worldwide participation of institutes, libraries, collaborations, funding agencies

Aims of SCOAP3:

- elimination of access barriers to journal articles in particle physics
- maintenance of the well-established peer-review system
- cost reduction





OA Variants

- Full OA
 - Conversion of traditional journals
 - Foundation of new journals
 - Sponsoring or publication charges, no subscription
 - Favored for pure particle physics journals
- Hybrid model
 - Subscription based, OA for some articles via publication charge
 - Adequate for mixed journals (e.g. Phys. Rev. Lett.)
 - **Danger of paying twice**



Time Schedule (driven by LHC)

- ✓ Setup of Task Force in Dec 2005 (authors, publishers and funding agencies)
- ✓ Report of the Task Force issued on 22 Jun 2006
- ✓ Interim working group established Nov 3 at CERN
- Progress report of Interim WG by end of Jan 2007
- Decision of consortium partners till Mar 2007
- Tendering process approx. 6 months
- Full OA publishing starting Jan 2008 (start-up of LHC)





Interim Working Group

Tasks:

- Find consortium partners in home countries
- Develop cost-sharing model
- Clarify legal national issues
- Formulate criteria for publishers to be accepted as SCOAP partners

Participating institutions:

- CERN, DESY, MPG, ECFA, IN2P3, CEA, INFN, NIKHEF, GASCO and others



DESY Support for SCOAP

- Letter from A. Wagner:
“DESY fully supports Open Access Publishing in Particle Physics and we would like to see it realized within a short time scale. It is of great importance for DESY to be actively and constructively involved in the forthcoming discussions aiming at establishing a Sponsoring Consortium.”
- R. Heuer at SCOAP3 meeting Nov 3, 2006
- Active participation in interim working group (AH)





Publication Landscape

9105 HEP articles appeared in peer-reviewed journals worldwide in 2005

- 54,5% published in 6 journals:
PRD, PLB, JHEP, NPB, PRL, NIMA
(rest: 143 journals)
- 86% published by 4 publishers:
APS 31.8, Elsevier 25.8, IOP/SISSA 18.6, Springer 9.4



Current Subscription Costs

University libraries in Germany/Austria/Switzerland spend 2.8 M€/year on 10 core journals (1.8 M€ go to Elsevier)

DESY: 560.000€(total)	189.000€(Elsevier)
100.000€(core 10)	~70.000€(Elsevier NIM, NPB, PLB)

NIM A+B:
16.000 €/year x 300 subscribing institutes participating in LHC
= 4.8 M€/year

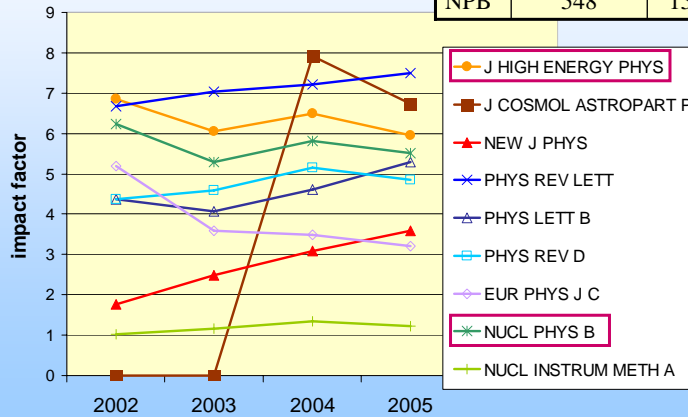


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Impact Factors and Costs

Large variation between publication costs.
No correlation to impact factor.

	Articles/year (2005)	Subscription costs (2007)	
		total	per article
JHEP	859	1.612€	1.88€
NPB	548	15.211€	27.76€



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Publishers move towards OA

Currently 2/3 of the sample has OA option (**Hybrid model**).

Single articles are made OA by paying a publication charge, subscription of the journal unchanged

⇒ **getting more expensive.**

Current publication charges:

Elsevier: 3000 €

Springer: 1000 € (before Nov 06: 3000 €)

APS: 975\$ (Phys.Rev.)

1300\$ (Phys.Rev.Lett.)

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Ready for OA Transition

OA Journals:

APS:	PR ST-AB	1.650\$/article	(sponsored by US institutes, TRIUMF, CERN, DESY)
IoP:	New J Phys	870€/article	740€(DPG) + other discounts

Interested in transition to full OA:

APS:	PRD
SISSA/IoP:	JHEP, JCAP, JINST
Springer:	EPJ C

New OA Journals:

~ 10 new physics journals in 2007 by PhysMathCentral
1 in HEP, 1 in photon science



Atlantis Press Offer

- New OA publisher
- Former Elsevier employees
- Peer review
- Permanent archiving (Dutch National Library)
- Creative Commons: authors keep their copyright
- ISI and DOI available
- Cost estimate: 750 – 1500\$/article





SISSA / IOP Offer

Institutional membership fee paid annually by the institution.

- Articles from the institution are published OA and remain OA in future years. (are made available to the entire world)
- Readers at that institution get OA for all of the journal's content (can access the full-text of all of the journal's content regardless of the status of the paper)

Starting from Jan 2007

# published papers	1-3	4-10	11-20	21-40	Subscription only
JHEP	1645\$	3290\$	4900\$	4155\$	1645\$
JINST	900\$	2545\$	4155\$	7755\$	900\$



Conferences

- Peer review primary reason for journals.
 - Conference proceedings in journal series are not peer-reviewed.
- ⇒ Paying for a service that has not been delivered.
- Dedicated OA conference series:
Proceedings of Science (IOP/SISSA)
Journal of Physics Conference Series (IOP)
New physmathcentral conference series





OA Financing

- Conversion of subscription budget into sponsoring and publication charge funds
- Funding agencies (DFG: national licence?)

Overall OA cost estimate: 10.000 journal articles/year

- Optimistic: 1000€/article ⇒ 10-30M€
- Realistic: 3000€/article Start-up with ~3M€

Fair share model:

- Split costs according to author affiliation
- Compensation for unduly burdened groups
- Waive fees for poor countries



Conclusion

OA is

- Necessary
- Feasible

Let's do it!

