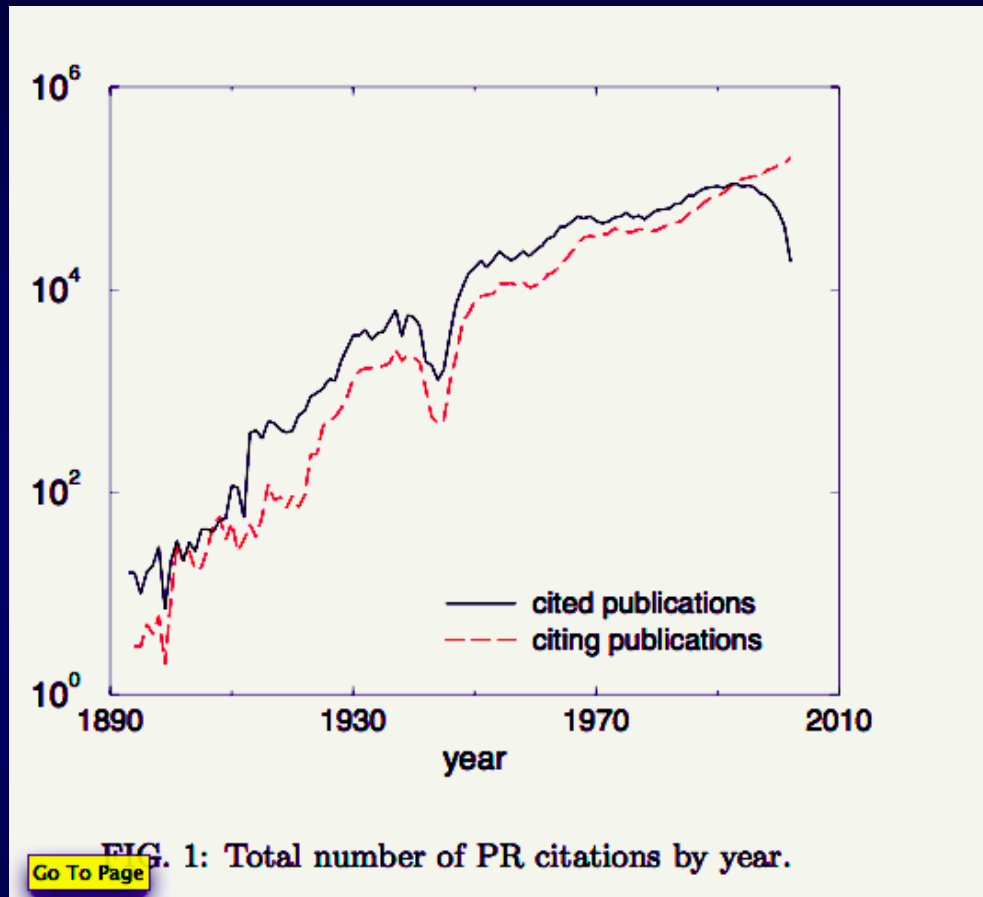


**Open Access Publishing
and the Role of
*New Journal of Physics***

Eberhard Bodenschatz
MPI-Dynamics and Self-Organization
Editor-in-Chief, *New Journal of Physics*
DPG Spring Meeting, Regensburg

27 March 2007

Ever increasing number of publications



Sid Redner

arXiv:physics/0407137 v2 6 Oct 2004

Ever increasing costs to society

Journal	JCR/ISI (2007)	price in \$ (2004)	articles/yr (2004)	price/art./read (2004)
Phys. Rev. E	2.42	2570 (on)	1800	1.50
Chaos	1.76	430 (on)	140	3.00
Physica D	1.87	Science Direct	350	8-12 (est. per dl)
Nonlinearity	1.01	1295 (on/pr)	100	13.00
J. Nonlinear Science	1.56	675 (on/pr)	20	33.75

http://osc.universityofcalifornia.edu/journals/journals_p.html

Traditional publishing before WWW:

- **Authors** submit.
- **Editor** selects referees.
- **Referees** review.
- **Editor** accepts/rejects.
- **Authors** pay page charges (PRL, Nature,...)
- **Journal** publishes and prints.
- **Libraries** subscribe and own paper copy.
- **Scientists** reads.

Traditional publishing before WWW:

- **Authors (scientists) submit.**
- **Editor (scientist) selects referees.**
- **Referees (scientists) review.**
- **Editor (scientist) accepts/rejects.**
- **Authors (scientists) pay page charges .**
- **Journal publishes and prints.**
- **Libraries subscribe and own paper copy.**
- **Scientists reads.**

Traditional publishing with WWW:

- **Authors (scientists) submit.**
- **Editor (scientist) selects referees.**
- **Referees (scientists) review.**
- **Editor (scientist) accepts/rejects.**
- **Authors (scientists) pay page charges.**
- **Journal publishes and prints.**
- **Libraries subscribe and ~~own paper copy.~~**
- **Scientists reads.**

Traditional publishing with WWW no pay:

- Authors (scientists) submit.
- Editor (scientist) selects referees.
- Referees (scientists) review.
- Editor (scientist) accepts/rejects.
- Authors (scientists) pay page charges.
- ~~Journal publishes and prints.~~
- ~~Libraries subscribe and own paper copy.~~
- ~~Scientists reads.~~

What's in for the publisher ?

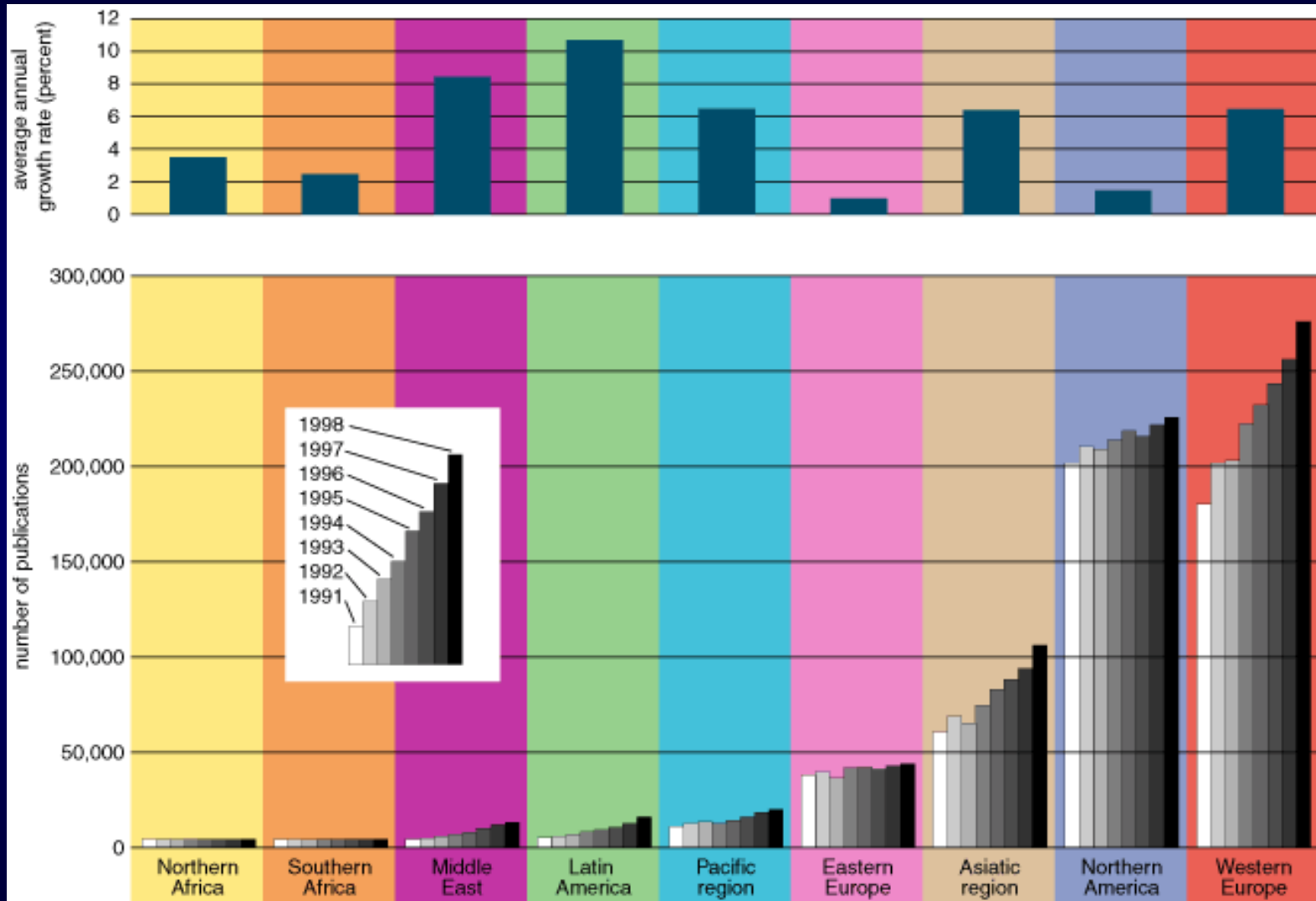
- **monopoly on owned manuscripts.**
- **ever increasing return on investment.**

What's in for the editor in chief ?

- **recognition**
- **power to stir (and steer) the field**
- **income**

conflict of interest?

submissions from poorer countries increasing



On the other hand ...

Science producers take ownership

⇒ **institutional repositories.**

- major research universities
- Max Planck Society
- CERN
- ...

already

- **Scientific information available worldwide**

Astrophysical data service (NASA)

http://adsabs.harvard.edu/ads_abstracts.html

NCBI (NIH) <http://www.ncbi.nlm.nih.gov/>

Google Scholar

arXiv (Cornell Univ.)

- free submission and access for everyone
- submission standardized (TeX)
- delivery immediately (PS, PDF, TEX)
- cited as authoritative reference in papers
- mirrored world wide
- costs per submission low (approx. US\$5)

nevertheless

- Refereeing important? **YES**
- Printed Versions important? **NO**
- Archiving **YES**
- Library
 - Shelves **NO – once online/scanned**
 - Gateway/Portal **YES**
 - Consultation **YES**
 - Financial support **YES**

traditional cost per publication

- o Editorial process
 - Refereeing
 - Text improvement (grammar, graphs,...)
- o Composition and production
- o Printing, paper, and binding
- o Subscription fulfillment (archiving)

who pays

Author (funding agencies)

- Doing research
- Writing manuscript
- Refereeing
- Page charges

Libraries

- Subscription
- Archiving
- Access and consultation

why?

Author (funding agencies)

- Communication with the world
- present and eternity
- Reach as large a community as one can

Libraries

- Service to researchers & students

electronic only publishing with tools

- o Editorial process
 - Refereeing
 - Text improvement (grammar, graphs,...)
- o Composition and production (partially)
- ~~o Printing, paper, and binding~~
- o Subscription fulfillment (electronic)

Euro 500-1000 per published article possible.

electronic only publishing with tools

- o Editorial process
 - Refereeing (through automated system)
 - ~~Text improvement (grammar, graphs,...)~~
- o ~~Composition and production (partially)~~
- o ~~Printing, paper, and binding~~
- o Subscription fulfillment (electronic)

Euro 5-100 per published article possible.

Access free for all – world wide

why?

- now possible.
- authors want visibility of their work.
- great for developing countries.

Open access

Access free for all – world wide

Who pays?

- funding agencies
- libraries
- author
- foreign aid for developing countries

Open access

archiving?

- National libraries
- University libraries (consortia)
- Professional societies and agencies
- Funding agencies (national interest)
- anyone

New Journal of Physics

- founded in 2001 IOP and DPG.
- author financed.
- full editorial support.
- full composition and production.
- break even.

New Journal of Physics

The open-access journal for physics

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An invitation to submit

The [Editorial Board](#) would like to invite article submissions from all researchers working at the forefront of areas extending across the whole of physics. For more information please see the [NJP journal scope](#) and the [Invitation to Authors](#) (PDF).

[Current month](#) March 2007 (45-72)

View journal by subject category

Quantum information and foundations of quantum mechanics

Journal archive

Vol 9, 2007

Focus issues

Dark Energy

Forthcoming articles

An advance list of articles that have been accepted for publication.

Forthcoming focus issues

An advance list of focus issues that have been initiated for publication.

NJP is a 'Rising Star'

NJP's Editor-in-Chief, Eberhard Bodenschatz, talks to In-cites about the journal's recent citation achievements.

What's new?

[Jorge Pullin elected corresponding member of the National Academies of Science of Argentina and Mexico.](#)

NJP news

[Max Planck Society to pay NJP article charge](#)
[JISC renews support for New Journal of Physics](#)

Journal history

1998-present New Journal of Physics



[recommend this journal](#)

ISSN 1367-2630 (Online)

e-mail alerts

An easy way to keep up to date



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2005 IMPACT FACTOR

3.585



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Full Search Author: Vol/Year: Issue/Month: Page/Article No:

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- To publish free-to-read research articles of outstanding scientific quality
- To provide access to readers across the world
- To offer authors high article visibility and fast publication
- To become the premier European research journal for physics

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- Article length flexible
- Funded by an article publication charge

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Subject scope

All of physics:

*pure, applied, theoretical,
experimental and interdisciplinary
research*

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The open-access journal for physics

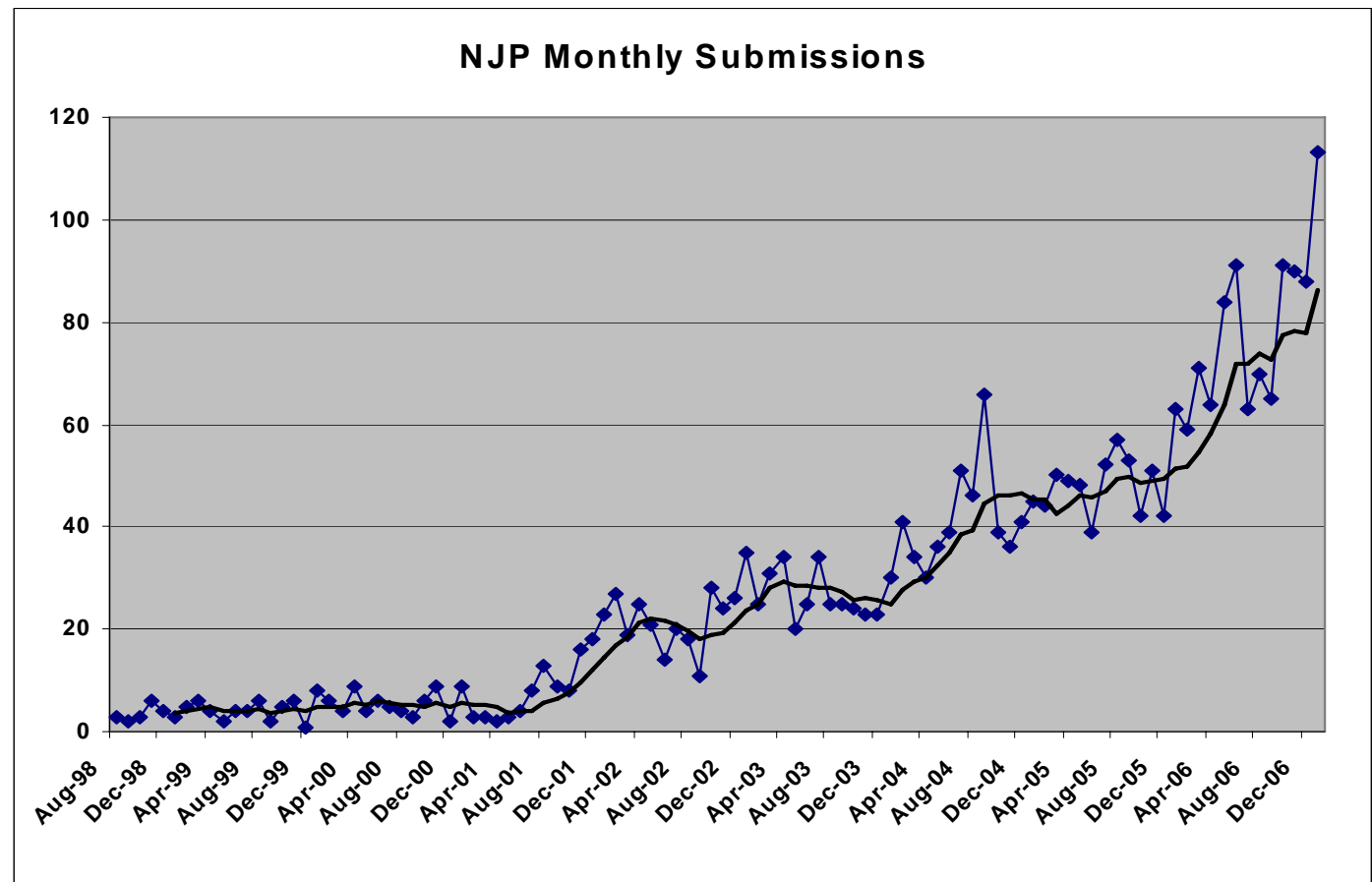
Criteria

- *highest scientific quality standards.
(originality and significance)*
- *shows substantial advances.*
- *appeal to broad readership.*

New Journal of Physics

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Journal content - submissions



New Journal of Physics

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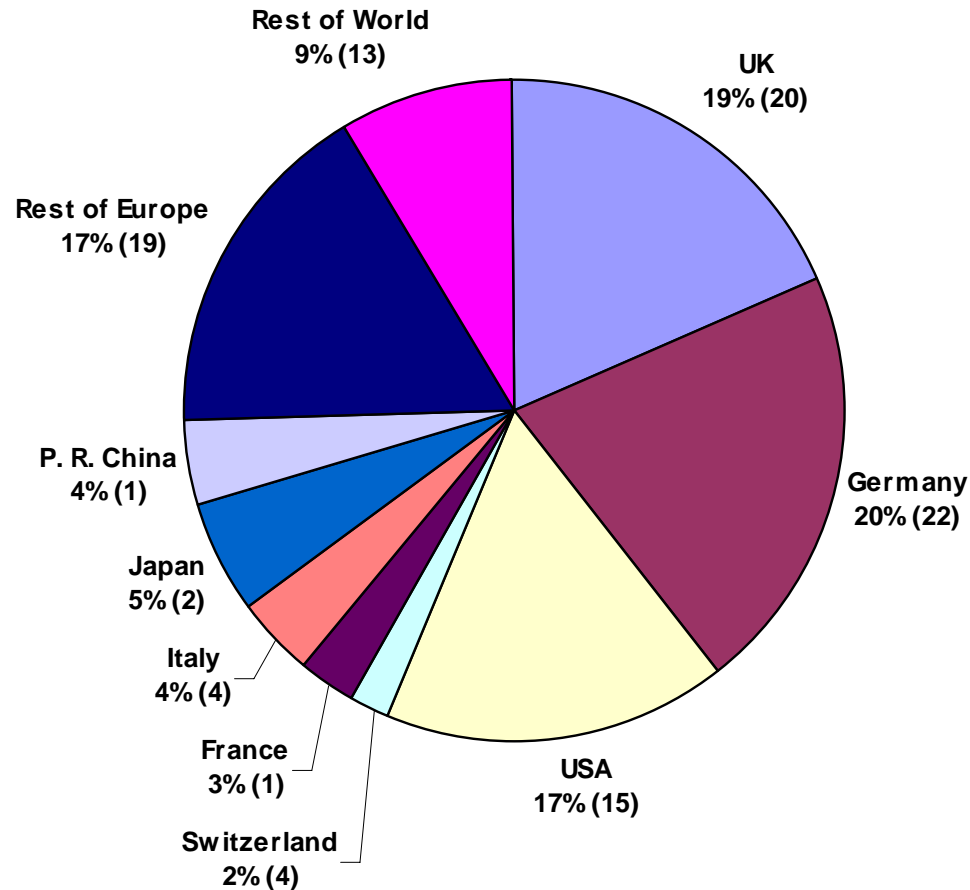
Journal - quality

- Every paper is assessed by a member of the Editorial Board as well as two independent referees.
- > **70%** of regular submissions are rejected
- Mean time to publication **3 months**.
- Fast track option possible - few weeks to publication.
- Very active editorial board
Argentina, Australia, Belgium, China, Finland, France, Germany, Israel, Italy, Japan, Mexico, Norway, Poland, South Africa , Spain, Sweden, UK, USA.

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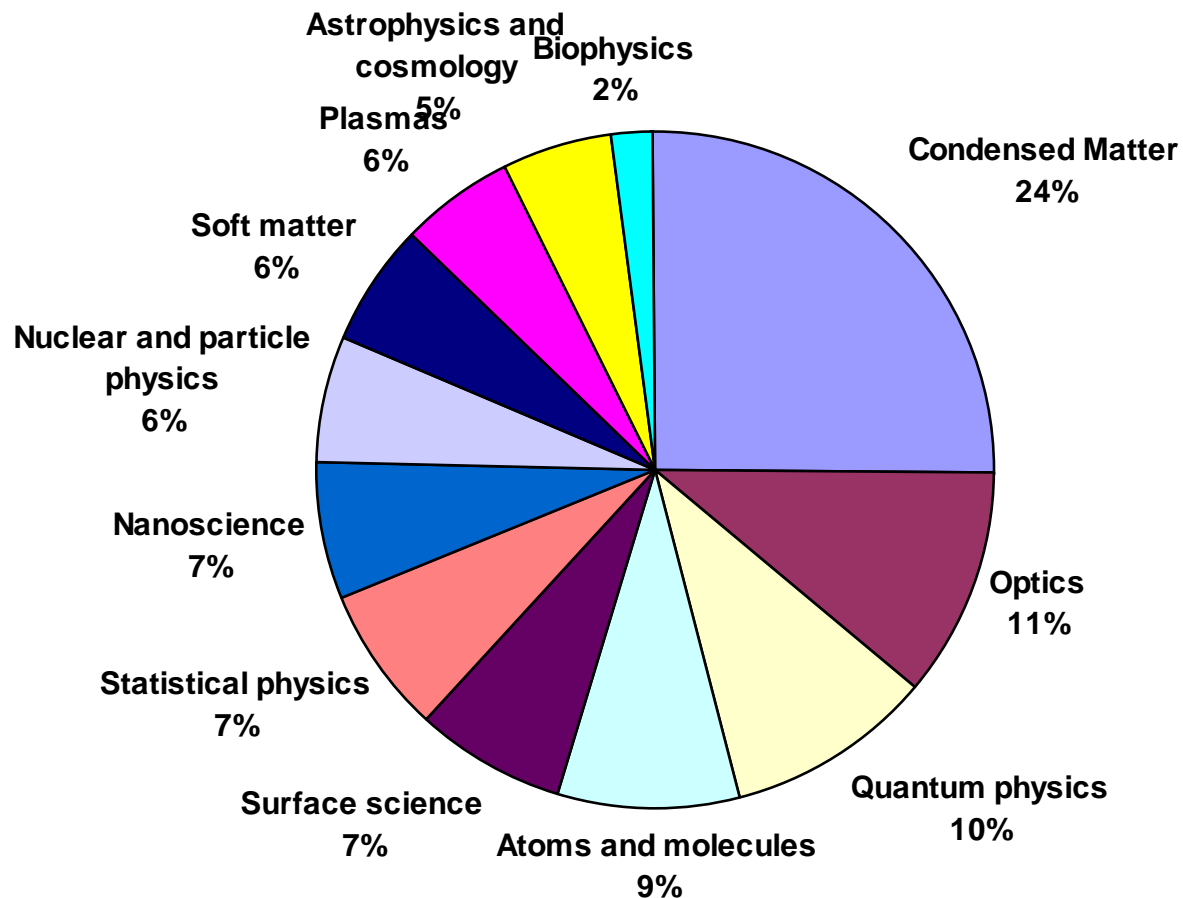
Journal content - geography



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Journal content – subject coverage



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Broad coverage

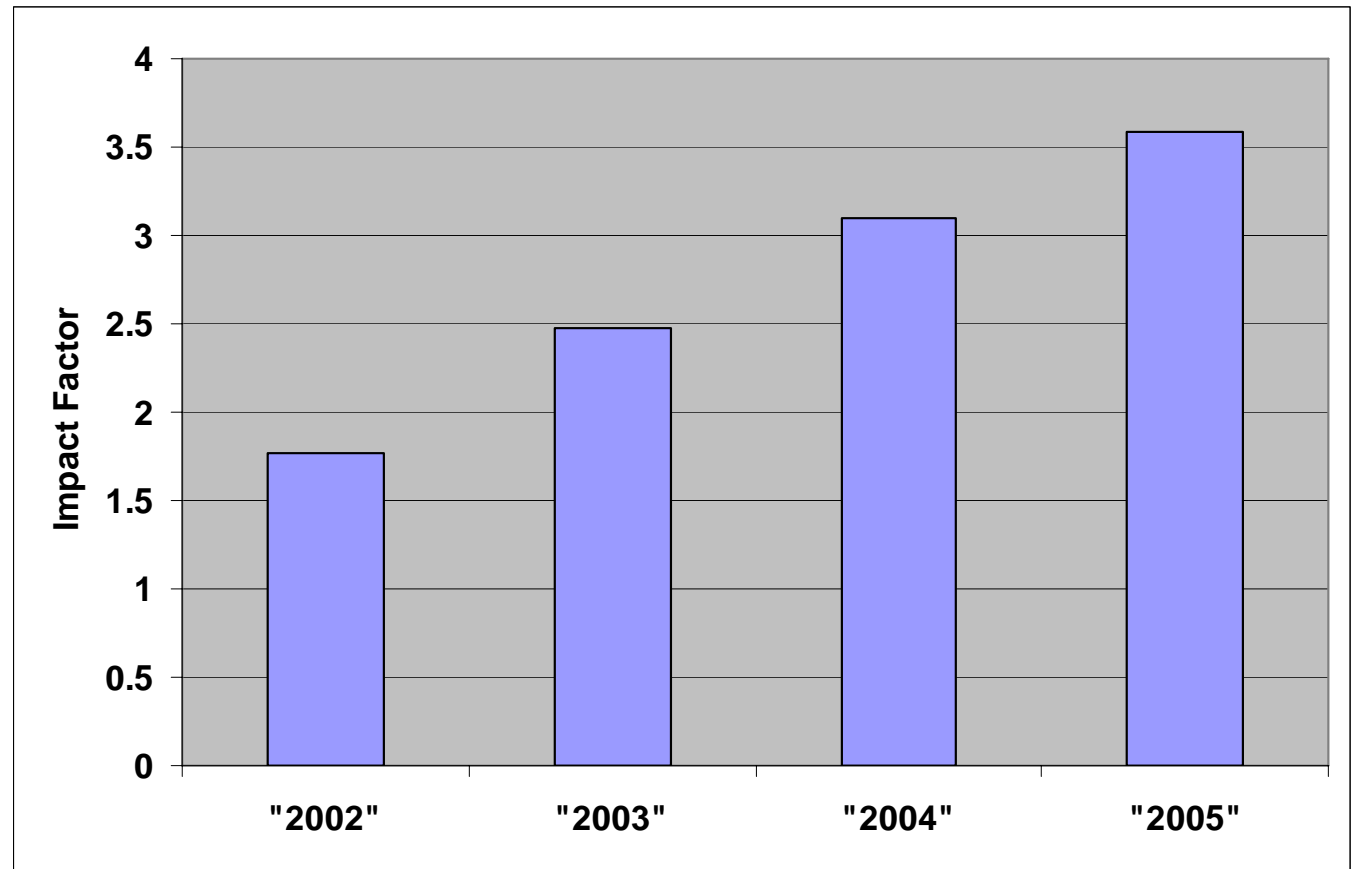
Focus issues scheduled for 2007 include:

- Interference in Mesoscopic Systems
- Measurement-based Quantum Information
- MHD and the Dynamo Problem
- Complex Networked Systems
- Physics of the Cytoskeleton
- Particle Physics at the TeV Scale
- Spintronics in Reduced Dimensions
- Surface and Interface Science
- Heart and Mind
- Attosecond Physics

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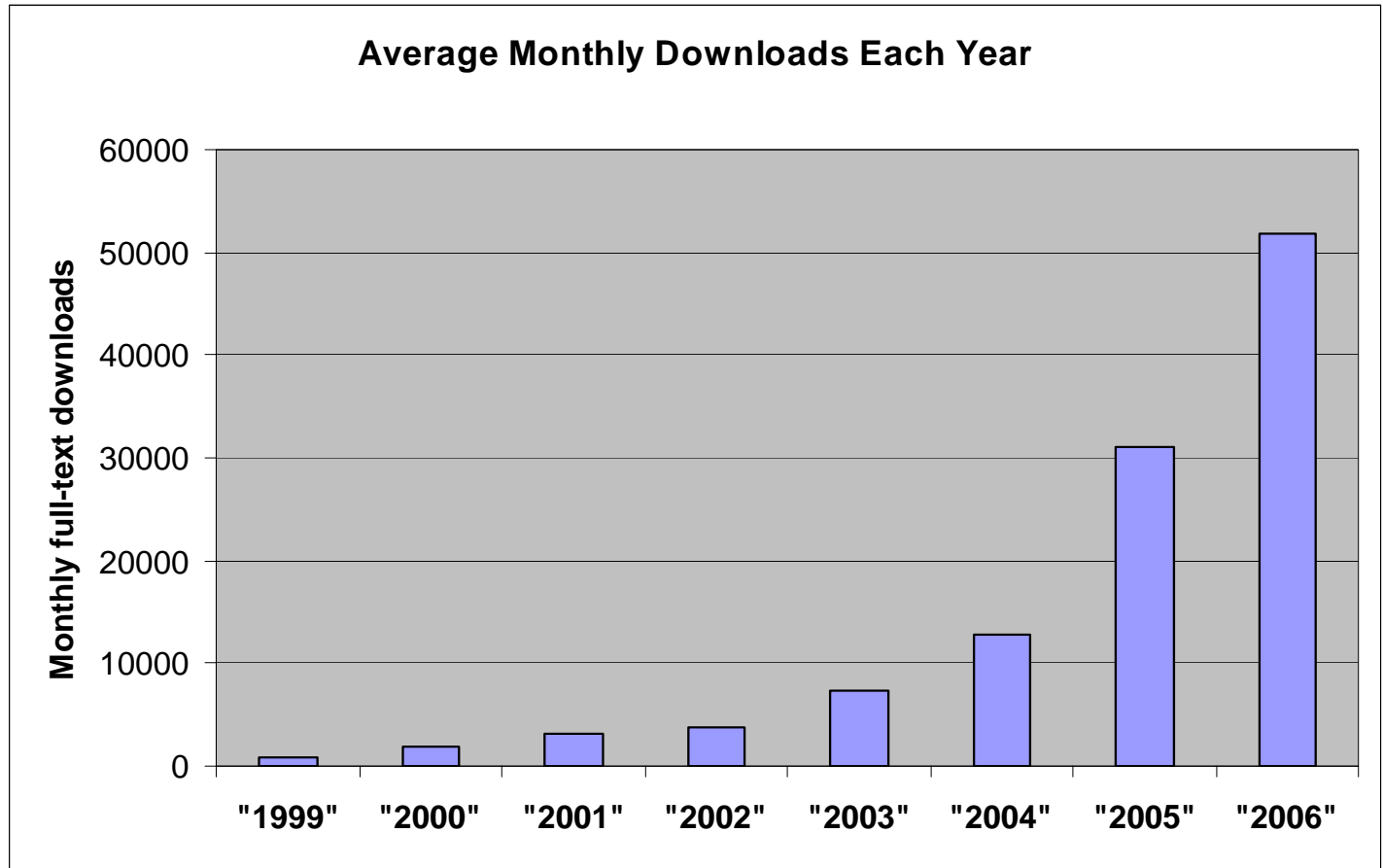
Journal Impact Factor



New Journal of Physics

The open-access journal for physics

Journal readership



New Journal of Physics

The open-access journal for physics

Journal readership

- **More than one million NJP articles downloaded since launch**
- **NJP readership is growing each year**
>50,000 downloads per month in 2006
- **Readership each month extends to over 180 countries**
- **Articles are increasingly being cited**
NJP has been by ISI identified as having had the highest percentage increase in total citations out of all journals in physics

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Archiving

- **Digital archives of NJP are stored locally at**
 - The British Library
 - Die Deutsch Bibliothek
- **NJP is preserved via the LOCKSS ("Lots of Copies Keep Stuff Safe") system**, a key archiving initiative launched by Stanford University that enables member libraries to collect, store, preserve, and provide access to their own local copy of the journal.
- **Further archiving agreements with other deposit libraries around the world are being encouraged**

New Journal of Physics

The open-access journal for physics

Advantages

- Free for all readers worldwide (everyone).
- Broadest possible distribution of knowledge.
- Market oriented model -
Is the impact/service of the journal worth MY money?
- Institutional Support - per article or flat rate.
- Stability guaranteed through DPG and IOP.

New Journal of Physics

The open-access journal for physics

Summary

- NJP has proved able to provide effective dissemination of its peer-reviewed content for the benefit of the whole physics community
- continued growth in both its readership and authorship indicated the increasing acceptance of NJP and its publishing model
- NJP is positioned at the vanguard of the open access publishing movement within the physical sciences
- the journal looks forward to a bright future, in particular in “improving the impact of physics research”

New Journal of Physics

The open-access journal for physics

Who pays

Article charge EURO 870 or US\$ 1080.

Members of DPG and IOP EURO 740

NJP referees' discount of 100 Pounds

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[Northwestern University Library](#) pays

[Max Planck Society](#) pays

DFG in Germany, and EPSRC and PPARC in the UK have agreed that the NJP publication fee may be applied for in their grants.