Web of Science / Web of Knowledge

A unified information solution for a research institution

Dr. Bernhard Mittermaler
Research Centre Jülich, Germany
Research Centre Jülich, Germany
Research Centre Jülich, Germany

- 4400 staff members
- 1300 scientists
- 2.2 km²
- largest multidisciplinary research institution in Europe
Research Areas (Selection)

- Atmospheric chemistry
- Biotechnology
- Fuel cells
- Interaction soil-plant-atmosphere
- Neuroscience
- Nuclear research
- Particle physics
- Solid-state research
- Supercomputing
Information Resources Management

- 2,000+ subscription-based electronic journals
- 200+ databases

The Web of Science (WoS) is used more often than the other databases together.
The Institute for Bio- and Nanosystems published in 2006 in 62 different journals.
One Database Fits All?
One Database Fits All?

- How do I synthesize aspirin?
  ➔ Chemical Abstracts
One Database Fits All?

- How do I synthesize aspirin?
  ➔ Chemical Abstracts

- I need references to power plants with more than 1500 MW
  ➔ INSPEC
One Database Fits All?

- How do I synthesize aspirin? ➔ Chemical Abstracts
- I need references to power plants with more than 1500 MW ➔ INSPEC
- MANY other questions ➔ WoS
One Database Fits All?

• How do I synthesize aspirin? ➔ Chemical Abstracts

• I need references to power plants with more than 1500 MW ➔ INSPEC

• MANY other questions ➔ WoS

“Most users are very complimentary of Web of Science, and do not mention using other databases aside from Google. Even the more difficult searching options in Web of Science (e.g. authors) are not seen as a problem by most users.”
Importance of the Web of Science

- First choice for many users
- Others use it to make sure they have not "missed anything" in their primary database
- Used to look up people
- Used to find citations and follow citation trails
ENHANCED MAGNETORESISTANCE IN LAYERED MAGNETIC-STRUCTURES WITH ANTIFERROMAGNETIC INTERLAYER EXCHANGE
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Author(s): BINASCH G, GRUNBERG P, SAURENBACK F, ZINN W
Source: PHYSICAL REVIEW B  Volume: 39  Issue: 7  Pages: 4828-4830  Published:
Times Cited: 987  References: 10
Document Type: Note  Language: English
1. Title: Resource letter STMN-1: Spin transport in magnetic nanostructures  
   Author(s): Hathaway K, Dahlberg ED  
   Times Cited: 0  
   Context Sensitive Links  

2. Title: Frequency- and time-domain investigation of the dynamic properties of interlayer-exchange-coupled Ni81Fe19/Ru/Ni81Fe19 thin films 
   Source: PHYSICAL REVIEW B  Volume: 76  Issue: 10  Article Number: 104414  Publication Date: 2007  
   Times Cited: 0  
   Context Sensitive Links  

3. Title: Hot-electron transport and magnetic anisotropy in epitaxial spin valves 
   Author(s): Heindl E, Vancea J, Woltersdorf G, et al. 
   Source: PHYSICAL REVIEW B  Volume: 76  Issue: 10  Article Number: 104435  Publication Date: 2007  
   Times Cited: 0  
   Context Sensitive Links  

4. Title: Semiconductor spintronics 
   Source: ACTA PHYSICA SLOVACA  Volume: 57  Issue: 4-5  Pages: 565-907  Publication Date: 2007  
   Times Cited: 0  
   Context Sensitive Links
Establishing New Cooperations


- as of today, cited by 90 publications
- among them are 2 publications by *Claus Lamm and Jean Decety, Department of Psychology and Center for Cognitive and Social Neuroscience, The University of Chicago*

- up to now, no cooperation with INB-3 from Julich

→ potential cooperation?
Analysis of Existing Cooperations

Copublications between Research Centre Julich and foreign institutions 2006

- 494 cooperations = 33%
- 192 cooperations = 12%
- 478 cooperations = 31%
- 171 cooperations = 11%
- 113 cooperations = 7%
- 93 cooperations = 6%

- Universities - USA (66 institutions)
- Universities - Europe (132 institutions)
- Universities - other countries (87 institutions)
- Other institutions - USA (43 institutions)
- Other institutions - Europe (138 institutions)
- Other institutions - other countries (56 institutions)
Bibliometric Analysis on the Scientific Output of India

B. Mittermaier, D. Tunger, U. Burkard, S. Ramowsky & H. Lexis
Forschungszentrum Jülich

in Zusammenarbeit mit

G. Heinrichs
Internationales Büro des BMBF

Februar 2007
Internationales Büro des BMBF (Hrsg.)

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Assistance for Policy Makers

Comparison of publication activities in Germany and India

percentage of publications from Germany and India per discipline

Biochemistry  Biology  Chemistry  Energy  Geosciences  Computer science  Engineering sciences  Agriculture  Materials science  Mathematics  Medicine  Physics

Germany  India
### Top Publishers

<table>
<thead>
<tr>
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### Highest Perception

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</table>
Assistance for Policy Makers

Materials science: development of co-publication between India and selected countries

- Percentage of co-publications from India's point of view
- USA
- Germany
- France
- United Kingdom
- Japan

- 1996-2000
- 2001-2005
Assistance for Policy Makers

Biochemistry: development of co-publication between India and selected countries

Percentage of co-publications from India's point of view

- USA
- Germany
- France
- United Kingdom
- Japan
## Selecting the Right Journal

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<td>KLINISCHE NEUROPHYSIOLOGIE</td>
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</table>

Research Centre Jülich, Institute of Neurosciences and Biophysics - Medicine
Cancellation of Journals

- less than 80 downloads p.a.? (⇒ publisher/host)
- no publication in the last two years? (⇒ WoS)

decision by subject librarians
Figure A. A timeline of all SMART topics; displayed is the percentage of each topic on the total publication output of the five SMART Topics in each year.
Analyses of Individuals

- Number of publications, citations, and citation rates along with their development over time
- Hirsch index
- Impact factor of journals
- Co-workers and their characteristic data
- ...
Thank you!

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