

# Status of PhysNet and SINN

SINN02

2nd International Technical Workshop  
of the project SINN



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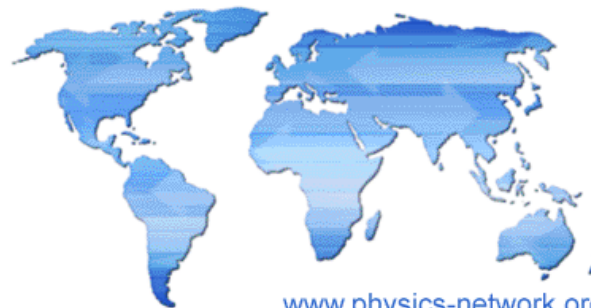
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DEPARTMENT OF PHYSICS

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Druckversion dieser Seite

Letzte Aktualisierung: 16. 06. 2002 © Institute for Science Networking, Oldenburg, Germany

Citebase

**Evaluate Citebase**,  
a citation-ranked  
search service  
produced by a  
project in conjunction  
with arXiv.

What's New?

PhysNet has a new  
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*up to date*, *free for*  
*access* service for  
physicists by **signing**  
**the**  
**PhysNet-Charter**

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- [Chemie.DE](#)
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[SINN02 Workshop](#)

 Institute for Science  
Networking Oldenburg  
GmbH  
an der  
Carl von Ossietzky Universität

**SINN is a project within the DFN-program**

'Einsatz von Netzdiensten im Wissenschaftlichen Informationswesen',  
supported by the German Academic Network Organisation (Deutsches  
Forschungsnetz - DFN), with the financial support of the German Ministry of  
Education and Research (Bundesministerium für Bildung und Forschung - BMBF)  
and the Government of Lower Saxony.

**Start/End: 1. Feb 2001 - 31. Jan 2003**

The aim of the project is to enhance the distributed information system PhysNet to a  
fast and secure service by setting up a network of independent but cooperating  
Harvest-brokers and Harvest-gatherers and building a network of PhysNet-mirrors.

## [www.isn-oldenburg.de/projects/SINN](http://www.isn-oldenburg.de/projects/SINN)

The project SINN is supported by the [German Research Network Organisation](#),  
with funds of the [German Ministry of Education and Research \(BMBF\)](#)  
and of the [Government of Lower Saxony](#).



Last Update: 09. Oct. 2002 © 2001-2002, [ISN Oldenburg GmbH](#)

# Motivation for SINN

- requirements for distributed systems
  - standardized syntax, common semantics
  - networking of information services
  - fast and stable
- enhance PhysNet to a fast and stable service

# Tasks

- setting-up an active network of PhysNet-mirrors
- setting-up a distributed search-engine network
- development of a protocol for data exchange, based on XML-Query
- development of a protocol for query exchange, based on XML-Query
- XML for infrastructure-communication
- training of partners
- international standardization initiatives

# The Project SINN

- supported by the German Research Network Organisation
- financial support by the German Ministry of Education and Research and the Government of Lower Saxony
- cooperation with international partners of PhysNet

# SINN01 in December 2001

- requirements for the mirror-script
- synchronisation of regional Broker and Gatherer
- list with alternative Brokers (if a Broker fails)
- exchange of Broker- and Gatherer-configuration-files (via mirroring)

# Mirrors of PhysNet

[www.physics-network.org](http://www.physics-network.org)

- EPS, Lausanne, Swiss [www.eps.org/PhysNet/](http://www.eps.org/PhysNet/)
- Physics Department of Virginia Tech, USA [www.phys.vt.edu/PhysNet/](http://www.phys.vt.edu/PhysNet/)
- Bayreuth University, Germany [www.uni-bayreuth.de/PhysNet/](http://www.uni-bayreuth.de/PhysNet/)
- eprints.org, UK [physnet.eprints.org/PhysNet/](http://physnet.eprints.org/PhysNet/)
- Russian Academy of Science, Chernogolovka, Russia  
[www.chg.ru/PhysNet/](http://www.chg.ru/PhysNet/)
- CCSD-CNRS, Lyon, France [ccsd.cnrs.fr/PhysNet/](http://ccsd.cnrs.fr/PhysNet/)
- Institute for Plasma Research, Bhat, India [www.plasma.ernet.in/PhysNet/](http://www.plasma.ernet.in/PhysNet/)
- NIKHEF, Amsterdam, Netherlands [www.nikhef.nl/PhysNet/](http://www.nikhef.nl/PhysNet/)
- Polish Physical Society, Warsaw, Poland [ptf.fuw.edu.pl/PhysNet/](http://ptf.fuw.edu.pl/PhysNet/)
- ftw. Vienna [ptf.fuw.edu.pl/PhysNet/](http://ptf.fuw.edu.pl/PhysNet/)
- Institute of Physics, Praha, Czech Republic [ptf.fuw.edu.pl/PhysNet/](http://ptf.fuw.edu.pl/PhysNet/)
- KFKI, Budapest, Hungary [ptf.fuw.edu.pl/PhysNet/](http://ptf.fuw.edu.pl/PhysNet/)



# Usage of PhysNet Mirror Servers

Mirror	%	Avg hits per day in the last 77 days
physics-network.org	79.9%	666.8
physnet.eprints.org	6.9%	57.8
www.eps.org	3.9%	33.1
www.chg.ru	1.8%	15
www.ccsd.cnrs.fr	1.7%	14.8
ptf.fuw.edu.pl	1.3%	10.9
www.uni-bayreuth.de	1.1%	9.2
www.phys.vt.edu	1%	9.1
www.fzu.cz	0.7%	6
www.nikhef.nl	0.6%	5.6
userver.ftw.at	0.3%	2.7
www.plasma.ernet.in	0.1%	1.2
www.physnet.hu	0.1%	1

# International activities

- W3C-Working-Group „XML-Query“
  - development of XML-protocol for linking real and virtual documents
  - definition of ‚virtual document collections‘  
(like the PhysNet-search-engines are)
  - query-rooting or index exchange
- Open Archives initiative (OAI)
  - XML-protocol for exchange of MetaData between archives
  - Index-exchange, not query rooting!
  - directly involved with the OAD-project

Search for Physics Documents:

Title:

Author:

Keywords or Classification:

Fulltext or Description:

Search in **whole**  PhysDoc - The Physics Documents Network  
 MPRESS - The Mathematics Preprint Search System

Search in well structured (MetaData) **part** of  
- PhysDoc - The Physics Documents Network  
- Parts of arXiv - e-Print archive  
- IOP

Slow but complete

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without ranking

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## Broker Query Results

Modify your query:

- [No Title](#)  
www-ra.phys.utas.edu.au  
*tell us what sort of universe we live in. The brightest known radio Einstein was identified as an Einstein ring/gravitational lens (Jauncey et al. 1991) and remains the*
- [ASU Physics & Astronomy | Research - Biophysics](#)  
phyastweb.la.asu.edu
- [Experimentelle Physik](#)  
wwwex.physik.uni-ulm.de
- [No Title](#)  
wwwlapp.in2p3.fr  
1.1.3 Equation d'Einstein ..... 6  
1.2.1 Linearisation de l'equation d'Einstein ..... 7  
*Tres vite apres l'elaboration de la theorie de la relativite gen erale, Einstein a mis en  
Quelques mois apres l'elaboration de la theorie de la relativite gen erale, Einstein a montre*
- [DEPARTAMENT DE FISICA](#)  
www.uib.es
- [No Title](#)  
www.pr.infn.it
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Search for Physics Documents:

Quick-Search

Title:

Author:

Keywords or Classification:

Fulltext or Description:

Search in **whole**  PhysDoc - The Physics Documents Network  
 MPRESS - The Mathematics Preprint Search System

Search in well structured (MetaData) **part** of  
 PhysDoc - The Physics Documents Network  
 Parts of arXiv - e-Print archive  
 IOP

Slow but complete

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**Searchresults for:**  
**Fulltext: einstein**

[MPress](#) gave 46 Results  
[PhysDoc](#) gave 1334 Results

- Title: **Calculation of thermodynamic properties of finite Bose-Einstein systems**  
 Author: Peter Borrmann [borrmann@uni-oldenburg.de](mailto:borrmann@uni-oldenburg.de) Jens Harting [harting@uni-oldenburg.de](mailto:harting@uni-oldenburg.de) Oliver Muelken [muelken@uni-oldenburg.de](mailto:muelken@uni-oldenburg.de) Eberhard R. Hilf [hilf@merlin.physik.uni-oldenburg.de](mailto:hilf@merlin.physik.uni-oldenburg.de)  
 URL: <http://www.smallsystems.de/publications/metadocs/calculation.of.thermodynamic.html>  
 Host: [www.smallsystems.de](http://www.smallsystems.de)  
 Classification:
  - PACS: 03.75.Fi Phase coherent atomic ensembles; quantum condensation phenomena
  - PACS: 05.30.Jp Boson systems
  - PACS: 32.80.Pj Optical cooling of atoms; trapping

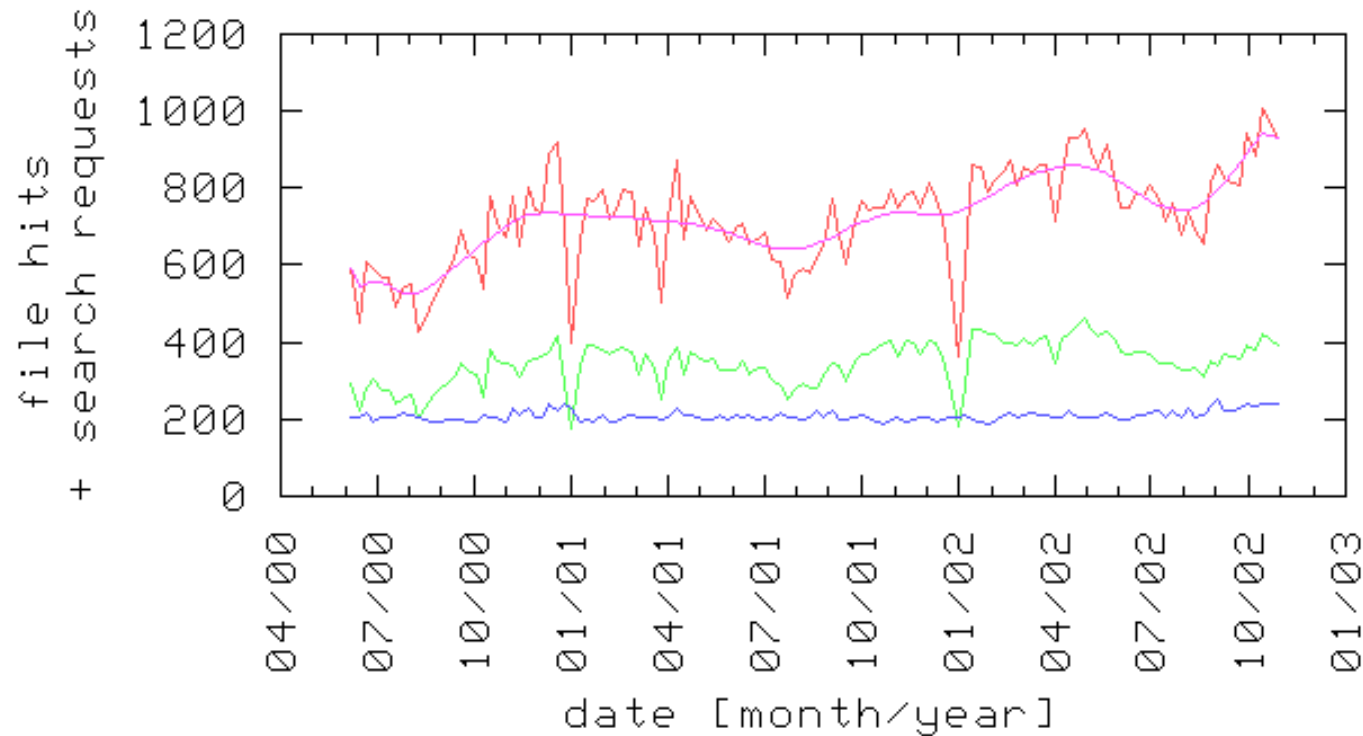
Keywords: Bose-Einstein Bose-Einstein-Condensation canonical ensemble recursion formula statistical physics finite systems thermodynamic properties (TYPE=acs96) 03.75.Fi Phase coherent atomic ensemble (Bose condensation) (TYPE=acs96) 05.30.Jp Boson systems (TYPE=acs96) 32.80.Pj Optical cooling of atoms trapping  
 Description: like Bose-Einstein condensates in magnetic traps. The numerical (found by [PhysDoc](#))

- Title: **Phenomenology of phases: from nuclear multifragmentation to Bose-Einstein condensation**  
 URL: <http://www.physik.uni-oldenburg.de/docserver/diss/metadocs/200200711161.html>  
 Host: [www.physik.uni-oldenburg.de](http://www.physik.uni-oldenburg.de)  
 Classification:
  - PACS: 05.70.Fh Phase transitions: general studies

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 ranking implemented  
 together nearly  
 100.000 documents

Daily Usage of PhysNet  
average usage per week



— klicks  
— visits  
— klicks/visit\*100

maximum of search requests: **1141**/month  
 maximum of hits: **25670**/month  
 maximum of visits: **12747**/month