IOP Publishing

eprintweb.org:

A new window on arXiv content

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May 10 2007

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- **Institute of Physics is a membership organisation devoted to increasing the understanding and application of physics**
  - Supporting physics and physicists
  - Supporting scientific communication
  - Supporting peer review and ‘journals’
- **eprintweb is part of the above mission**

IOP | eprintweb.org beta

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in Full Record And

in Abstract And

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Sort Order: Date Added

Per page: 30

Search

Announcement

The format of article identifiers for new submissions will change from 1 April 2007, due to a new identification system introduced throughout the arXiv.org. More information is available to help you familiarize yourself with the new format.

Browse	Today	7 Days
Astrophysics (astro-ph)	41	194
Condensed Matter (cond-mat)	21	150
Computer Research Repository (CoRR)	2	33
General Relativity and Quantum Cosmology (gr-qc)	2	27
High Energy Physics - Experiment (hep-ex)	0	9
High Energy Physics - Lattice (hep-lat)	1	4
High Energy Physics - Phenomenology (hep-ph)	11	51
High Energy Physics - Theory (hep-th)	8	50
Mathematics (math)	27	163
Mathematical Physics (math-ph)	5	18
Nonlinear Sciences (nlin)	3	11
Nuclear Experiment (nucl-ex)	0	7
Nuclear Theory (nucl-th)	5	19
Physics (physics)	13	56
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Quantum Physics (quant-ph)	8	42

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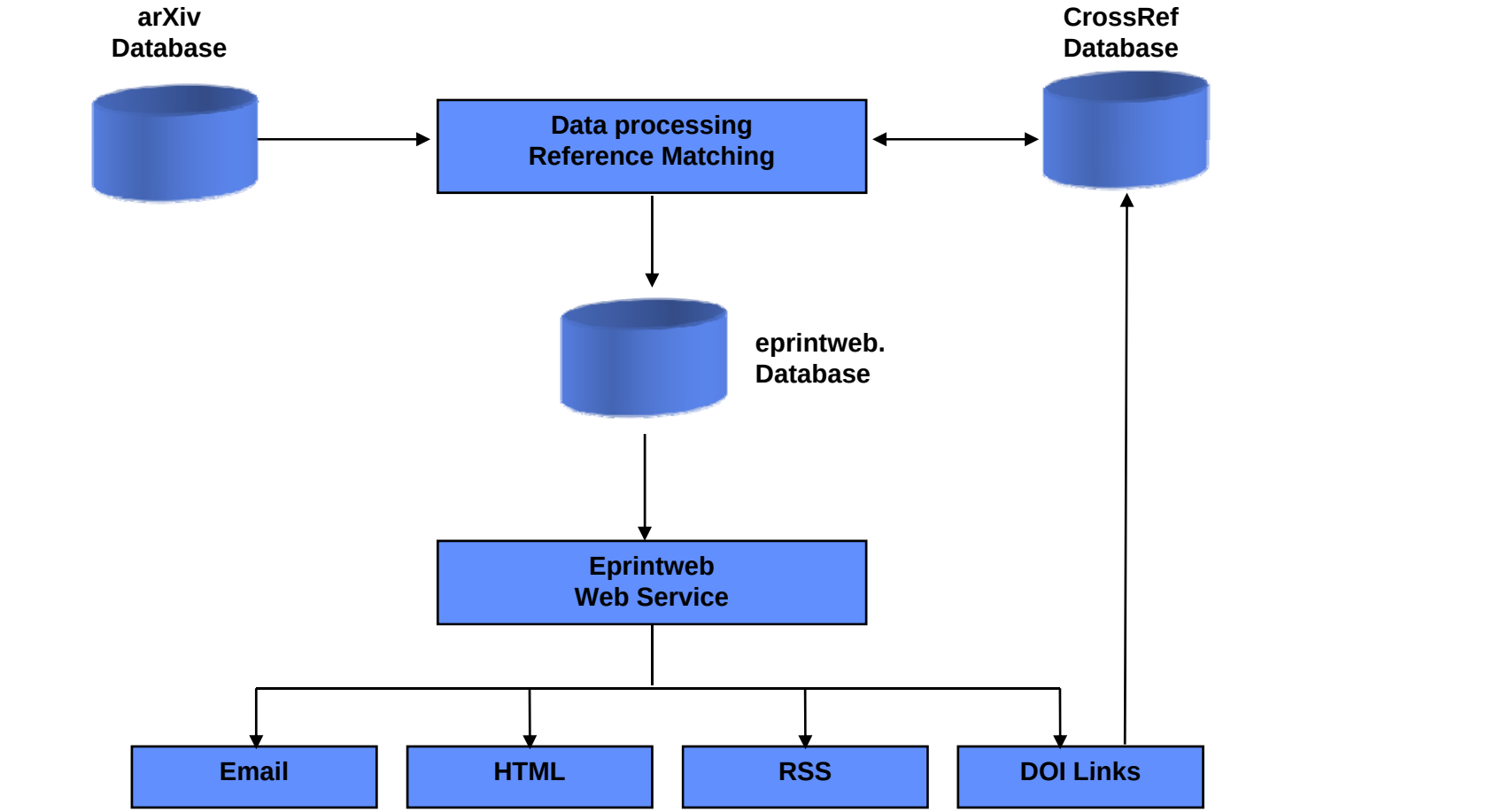
eprintweb.org

- **New search and browse interface**
  - Based on content posted to arXiv
  - 420,000 items
- **Features**
  - Author indexing and browsing
  - Fast clean interface
  - Linking to peer reviewed item and reference links
  - RSS feeds
  - Personalisation (email alerts, bookmarking)

eprintweb.org: current status

- **March 2007**
  - 76,000 unique visitors
  - 306,000 page views (excl. full text)
- **Linking (aim is to link all peer reviewed content)**
  - Links to journal articles
    - 200,000 source items matched using DOI (via CrossRef)
    - 8,300,000 references linked (via DOI)

eprintweb ‘system’ map



cond-mat/0701002 (January 2007)

β-NMR of Isolated ^{8}Li^{+} Implanted into a Thin Copper Film

Z. Salman, A. I. Mansour, K. H. Chow, M. Beaudoin, I. Fan, J. Jung, T. A. Keeler, R. F. Kiefl, C. D. P. Levy, R. C. Ma, G. D. Morris, T. J. Parolin, D. Wang and W. A. MacFarlane

Received. 29 December 2006 **Last updated.** 29 December 2006

Abstract. Depth-controlled β-NMR was used to study highly spin-polarized ^{8}Li in a Cu film of thickness 100 nm deposited onto a MgO substrate. The positive Knight Shifts and spin relaxation data show that ^{8}Li occupies two sites at low temperatures, assigned to be the substitutional (S) and octahedral (O) interstitial sites. Between 50 to 100 K, there is a site change from O to S. The temperature dependence of the Knight shifts and spin-lattice relaxation rates at high temperatures, i.e. when all the Li are in the S site, is consistent with the Korringa Law for a simple metal.

Categories. cond-mat.str-el

Subject. Strongly Correlated Electrons

Comment. Accepted for publication in Phys. Rev. B

Journal-ref. Phys. Rev. B 75, 073405 (2007)

Published Article doi: 10.1103/PhysRevB.75.073405

Critical Current of Type-II Superconductors in a Broken Bose Bose Glass State
J. P. Rodriguez **arXiv:0704.1536** (April 2007)

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Links to published articles are provided to the publishers web site (access is subject to subscription status).

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Correspondence between kinematical backreaction and scalar field cosmologies - the `morphon field'
Thomas Buchert, Julien Larena, Jean-Michel Alimi **gr-qc/0606020** (June 2006)

Citations

The citations are based on preprints held within the arXiv database and articles published by IoP Publishing.

The possibility of cosmic acceleration via spatial averaging in Lemaître–Tolman–Bondi models
Aseem Paranjape and T P Singh *Class. Quantum Grav.* **23** (2006) [Article]

Accelerated expansion from structure formation
Syksy Räsänen *J. Cosmol. Astropart. Phys.* **2006** (2006) [Article]

Can a dust dominated universe have accelerated expansion?
H. Alnes, M. Amarzguioui, O. Gron astro-ph/0506449 (2005) [Preprint]

Explicit Cosmological Coarse Graining via Spatial Averaging
Aseem Paranjape, T. P. Singh astro-ph/0609481 (2006) [Preprint]

Scaling Cosmologies of N=8 Gauged Supergravity
Jan Rosseel, Thomas Van Riet, Dennis B. Westra hep-th/0610143 (2006) [Preprint]

On causality and superluminal behavior in classical field theories. Applications to k-essence theories and MOND-like theories of gravity
Jean-Philippe Bruneton gr-qc/0607055 (2006) [Preprint]

The Possibility of Cosmic Acceleration via Spatial Averaging in Lemaitre-Tolman-Bondi Models
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Accelerated expansion from structure formation
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Gauge Invariant Treatment of the Energy Carried by a Gravitational Wave
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The Spatial Averaging Limit of Covariant Macroscopic Gravity - Scalar Corrections to the Cosmological Equations
Aseem Paranjape, T. P. Singh gr-qc/0703106 (2007) [Preprint]

IOP Publishing

Repositories and publishers: recognising complementary strengths

- **arXiv provides a highly valued service**
  - core for HEP community and others
- **eprintweb – extends that value**
- **Physicists also value journal prestige and authority**
- **Journals add:**
  - peer review & quality standards
  - editing & formatting
  - standards of trust & accuracy
  - indexing & linking
  - archiving
  - filtering & community building
- **Journals and arXiv continue to grow**

Weaknesses

- **Physics is non-homogeneous**
  - What works for HEP won't necessarily work for semiconductor physics
  - E-print culture varies
    - Behavioural norms + technical issues (e.g. familiarity with and use of TeX).
- **Reference extraction is not always automatic**
- **Naming conventions**
  - Institutions and individuals
- **Data is not well linked into current existing systems, e.g. journals**

Repositories and publishers: collaborative efforts

- **Working together**
  - Interoperability, e.g. citation links
  - Linking journal articles to other data:
    - Software, algorithms, data, multimedia, dissertations
      - see *Inverse Problems* special issues on algorithms and data and software archive
      - Growing number of IOP journal articles include multimedia
  - Version naming conventions e.g. NISO

- **eprintweb collaborators include:**
  - Cornell University Library
  - CrossRef
  - ADS
  - Verity K2 software (search partner)

Possible future plans

- **Continued collaboration with Cornell University Library**
- **New communities**
  - Extend into new subject areas
  - Raise awareness
  - Increase usage
  - Tools for non-TeX users (MS-Word)
- **Revisit ‘institutional view’**
- **Launch math.eprintweb.org**
  - In development with Institute of Mathematical Statistics
  - To add statistics and probability sections
- **Integrate JET E-Prints service**