

The New INSPIRE Database

Searching made easier and faster

The existing SPIRES database

- SPIRES-HEP has 800,000+ records on published papers, eprints, preprints, conference proceedings, design reports, etc.
 - Titles, authors, publication notes, collaboration names, experiment number, keywords and references.
- Additional authority databases
 - CONF: conferences, where, when.
 - HEPNAMES: person's name, email, advisor, affiliation.
 - EXPERIMENTS: title, number, abstract, lab.
 - INST: address, url, tag (HEP200, TOP500, etc).

The SPIRES Collaboration

-  keywords, journals, conference proceedings
-  HEPJobs, HEPNAMES, Physical Review
-  everything else
- This is not an exhaustive list of responsibilities.

Problems with SPIRES

- Aging software developed at Stanford in 1960s!
- IBM mainframe code run through “unix emulator.”
- Web interface uses 1985 software developed for email!
- Difficult for developers to make improvements.
- Painfully slow at times for users.
- No modern features (Web2.0, apps, API).
- Something needs to be done!!!

2007: Partnership with



- CERN Document Server run using CERN-developed Invenio (“I find”) database software.
 - Fast, modern (written in Python) , supported by CERN IT.
- SLAC, DESY and Fermilab decide to partner with CERN to upgrade SPIRES to Invenio platform.
- 2007 – 2008: load all SPIRES content, reproduce searching.
- 2008 – 2010: develop cataloguing tools for Library staff.
- **In**venio + **SPIRES** = **INSPIRE**
- April 2010: <http://inspirebeta.net>

INSPIRE

- Supports 2 types of searching:
 - SPIRES: find a albrow, m and t quark and date 1995
 - “Google”: appel yale interaction 1991
 - July 2010: full-text searching of 100k arXiv and published articles
- Ability to select number of results returned per page
 - 25 → 100
- “Detailed Record” provides extra information about paper, such as
 - papers co-cited with it.
 - Citation history (i.e., cites per year)

Detailed Record of a Paper

HEP :: HELP SPIRES HEPNAMES :: INST :: CONF :: EXP :: JOBS

[Home](#) > [Chiral Symmetry and the Bag Model: A New Starting Point for Nuclear Physics](#)

Information

References (179)

Citations (592)

Chiral Symmetry and the Bag Model: A New Starting Point for Nuclear Physics.

Anthony William Thomas (TRIUMF & CERN).
Jul 1982

Adv.Nucl.Phys. 13 (1984) 1-137

Keyword(s): [INSPIRE: REVIEW](#) | [MODEL: BAG](#) | [SYMMETRY: CHIRAL](#) | [HADRON SPECTROSCOPY](#) | [HYPERFINE STRUCTURE](#) | [FIELD THEORY: VACUUM STATE](#) | [FIELD THEORY: CRITICAL PHENOMENA](#) | [QUARK: MASS](#) | [MASS: QUARK](#) | [HADRON: MODEL](#) | [MAGNETIC MOMENT](#) | [CHARGE DISTRIBUTION](#) | [CURRENT: AXIAL-VECTOR](#) | [WEAK INTERACTION](#) | [MODEL: INDEPENDENT PARTICLE](#) | [CHARGED CURRENT](#) | [MODEL: PCAC](#) | [FIELD THEORETICAL MODEL: SIGMA](#) | [SPONTANEOUS SYMMETRY BREAKING](#) | [PERTURBATION THEORY](#) | [NUCLEON: MODEL](#) | [P: DECAY](#) | [DECAY: P](#) | [P-NUCLEON: INTERACTION](#) | [INTERACTION: P NUCLEON](#) | [PARTIAL WAVE](#) | [NUCLEAR PHYSICS](#) | [NUCLEON NUCLEON: FORCE](#) | [NUCLEON ANTINUCLEON: INTERACTION](#) | [INTERACTION: NUCLEON ANTINUCLEON](#) | [CHARGE: SYMMETRY BREAKING](#) | [NUCLEAR MATTER: DENSITY](#) | [MANY-BODY PROBLEM](#) | [NUMERICAL CALCULATIONS](#) | [BIBLIOGRAPHY](#) | [INTERPRETATION OF EXPERIMENTS](#)

Record created 1982-07-01, last modified 2010-02-16

[Similar records](#)

Reference display in Detailed Record

Cited by: 590 records

- (1252) [The Relativistic Nuclear Many Body Problem](#) - Serot, Brian D. *et al* ITP-740-STANFORD
- (786) [The Meson theory of nuclear forces and nuclear structure](#) - Machleidt, R.
- (434) [Hard Nuclear Processes and Microscopic Nuclear Structure](#) - Frankfurt, L.L. *et al*
- (250) [A Possible Quark Mechanism for the Saturation of Nuclear Matter](#) - Guichon, Pierre A.M. LYCEN-8762
- (215) [Baryons as nontopological chiral solitons](#) - Christov, Chr.V. *et al* hep-ph/9604441, RUB-TPII-32-95

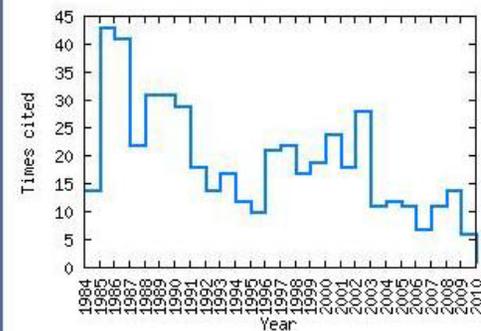
[more](#)

Co-cited with: 9776 records

- (135) [The Cloudy Bag Model. 1. The \(3,3\) Resonance](#) - Theberge, S. *et al* TRI-PP-80-8
- (110) [A New Extended Model of Hadrons](#) - Chodos, A. *et al* MIT-CTP-387-REV, MIT-CTP-387
- (109) [Masses and Other Parameters of the Light Hadrons](#) - DeGrand, Thomas A. *et al* MIT-CTP-475
- (96) [The Cloudy Bag Model of the Nucleon](#) - Thomas, Anthony William *et al* TRI-PP-81-4, RLO-1388-829
- (83) [The Little Bag](#) - Brown, G.E. *et al*

[more](#)

Citation history:



Author ambiguities

- Longstanding problem of how to search uniquely and comprehensively for an author in SPIRES-HEP
 - CDF: Sarah Malik, D0: Sudhir Malik
 - BaBar: 2 David N. Browns
 - Denis Bernard (Saclay), Denis Bernard (Ecole Polytech), Bernard Denis (CERN)
 - Subir Sarkar (Oxford), Subir Sarkar (Pisa)
- Need help from authors to maintain crisp identification of papers.

Author ID numbers

- Author ID should happen at time of submission to arXiv
- What to use?
- Email address?
 - Provides unique identification of person
 - Changes with time
 - Want a file with email addresses of 1,000+ authors?
- Lab ID?
 - Provides unique identification of person
 - People have more than one (Fermilab, SLAC, CERN) and many people have none!
 - Used for other things at Labs (e.g., login)

Create INSPIRE Author ID numbers

- INSPIRE-12345678 (for example)
 - No outside meaning, so no other concerns.
 - One and only one number per person.
 - Does not change as person changes affiliation.
- Help collaborations include authors.xml for arXiv.org post.
 - Library prepares a template based on most recent paper.
 - MiniBooNE, D0, H1, STAR and LHC collaborations have used this.
- Fermilab Library has devoted much effort in assigning INSPIRE numbers to authors of the collaborations and ensuring they have a full record in HEPNAMES and creating an authors.xml files for collaborations. 20k+ INSPIRE numbers assigned.
- Authors.xml information flows to publishers, ISI, etc through ORCID.

Example of authors.xml file

```
<?xml version="1.0" encoding="UTF-8"?>
<authorList>
  <collaboration>ICECUBE</collaboration>
  <authorOrganization>
    <author>
      <name>Abbasi, R.</name>
      <authorID>INSPIRE-00324585</authorID>
    </author>
    <organization>wisc.edu</organization>
  </authorOrganization>
  <authorOrganization>
    <author>
      <name>Abdou, Y.</name>
      <authorID>INSPIRE-00324592</authorID>
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    <organization>ugent.be</organization>
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    <author>
      <name>Abu-Zayyad, T.</name>
      <authorID>INSPIRE-00324608</authorID>
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  <authorOrganization>
    <author>
      <name>Adams, J.</name>
      <authorID>INSPIRE-00324614</authorID>
    </author>
    <organization>canterbury.ac.nz</organization>
  </authorOrganization>

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Conclusions

- <http://inspirebeta.net>
 - 90% ready to fully replace SPIRES
 - Tell us what you think, help us improve it.
 - feedback@inspire-hep.net
- Include an authors.xml file with your arXiv submission
 - Fermilab Library can create this for you.
 - This file will help publishers and other databases keep your identity straight through Project ORCID.
 - Tell us any suggestions.