

A PHYSICIST'S GUIDE TO KEY LIBRARY RESOURCES

INSPEC

Most complete physics resource. Over 13 million records, international in scope, in all fields of physics, materials science, computer science, and engineering.

HOW TO GET TO IT

<http://www.physics.harvard.edu/library/resources>

PROS

- Much more extensive for published literature (but not arXiv)
- Much greater historical backlog (starting 1898)
- Coverage much broader than arXiv
- Coverage contains published works not found in GS

CONS

- Basic searching not as "smart" as Google Search

GOOGLE SCHOLAR

This service can be used to find articles from a wide variety of academic publishers, professional societies, preprint repositories and universities, as well as scholarly articles available across the web. It has the fastest, simplest interface.

HOW TO GET TO IT

When using the Harvard network, go to <http://scholar.google.com>; otherwise, go to <http://scholar.google.com.ezp1.harvard.edu>

PROS

- Fewer clicks
- Very smart, very flexible unstructured searching (you can copy and paste citations into the search box)
- Shows multiple versions of each article in multiple publications (when available)
- Includes non-peer-reviewed publications (including the arXiv)
- Includes Google Books (full text!)

CONS

- Does not include all the materials covered by Inspec

ADS (SMITHSONIAN/NASA ASTROPHYSICS DATA SYSTEM)

A Digital Library portal for research in Astronomy and Physics. Searches the 6,895,454 records currently in the Physics database, including 533,806 abstracts from APS journals and 349,983 abstracts from SPIE conference proceedings.

HOW TO GET TO IT

<http://www.physics.harvard.edu/library/resources>

PROS

- Highly customizable searching
- Broad coverage of physics topics
- Searches all of arXiv

CONS

- Does not include all the materials covered by Inspec

WEB OF SCIENCE (SCIENCE CITATION INDEX EXPANDED)

Indexes major journals in science disciplines.

HOW TO GET TO IT

<http://www.physics.harvard.edu/library/resources>

PROS

- Very good cited literature search features
- Goes back to 1900

CONS

- Does not have the depth of coverage of INSPEC, ADS, or Google Scholar

ARXIV

Cutting-edge preprint server for many (but not all) major physics fields.

HOW TO GET TO IT

<http://arxiv.org>

PROS

- Most up-to-date resource
- Preprints
- Always full text
- Always free
- Shows today's papers

CONS

- No peer review
- Quality control issues
- Not all subfields upload regularly to the arXiv

INSPIRE

High-Energy Physics Literature Database.

HOW TO GET TO IT

<http://www.physics.harvard.edu/library/resources>

PROS

- Very good search and citation statistics features

CONS

- Limited to HEP subjects

AMERICAN JOURNAL OF PHYSICS

Primary journal resource for pedagogical and student-friendly physics articles.

HOW TO GET TO IT

<http://www.physics.harvard.edu/library/resources>

PROS

- Papers are highly readable.
- Good for quickly getting background and context in a new topic
- Good for coursework and teaching materials.

CONS

- Not best source to find cutting-edge research