



**Research Resources
in Physics and Astronomy**

Laura Palumbo, Chemistry & Physics Librarian/
Science Data Specialist

November 22, 2016

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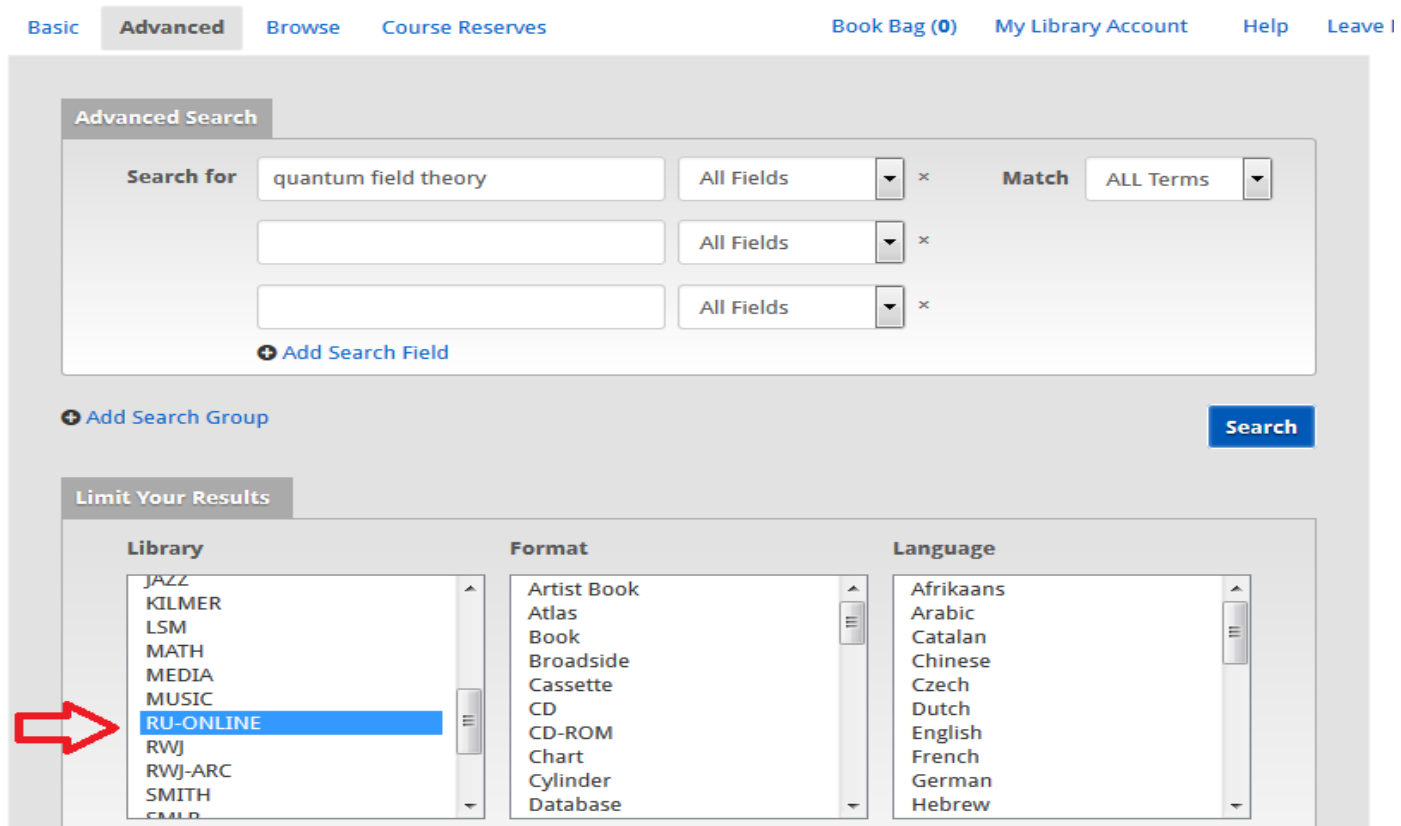


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MEDIA	Cassette	Czech
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RWJ	Chart	French
RWJ-ARC	Cylinder	German
SMITH	Database	Hebrew
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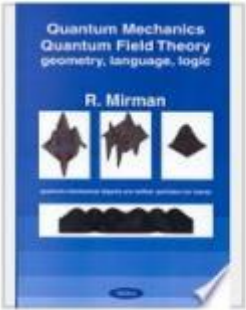
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Back to results » Quantum mechanics, quantum fie... » Holdings

#3 of 679 results



Quantum mechanics, quantum field theory : geometry, language, logic /

Main Author: **Mirman, R.**
 Format: **Book**
 Language: **English**
 Published: **Huntington, NY : Nova Science Publishers, c2001.**

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More on this subject



- Quantum theory.
- Quantum field theory.

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<http://libguides.rutgers.edu/physics>

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Rutgers Restricted Indexes & Databases

See a full list of Indexes and Databases available at Rutgers, click [here](#).

- [IEEE Xplore](#)

The *IEEE/IEE Electronic Library (IEL)* is a collaboration between the Institute of Electrical and Electronics Engineers (IEEE) in the US and the Institution of Engineering and Technology (IET) in the UK. It covers more than 30% of the world's literature in electrical engineering, electronics, computer science, information science, materials science, physical sciences and biomedical engineering. The database allows for full text access to over 140 journals, over 800 conference proceedings and 800 standards from more than 36 not-for-profit IEEE societies and IEEE.

- [INSPEC](#)

INSPEC provides the leading English-language bibliographic access to the world's scientific and technical literature in physics, electrical engineering, electronics, communications, control engineering, computers, computing, and information technology. In addition, there is significant coverage in materials science, oceanography, nuclear engineering, geophysics, biomedical engineering and

Freely Accessible Indexes & Databases

- [arXiv](#)

arXiv is a pre-print repository that provides open access to over 1 million e-prints in Physics, Mathematics, Computer Science, Quantitative Biology, Quantitative Finance and Statistics.

- [Astrophysics Data System](#)

ADS is a Digital Library portal for researchers in Astronomy and Physics. It maintains three bibliographic databases containing more than 8.5 million records: Astronomy and Astrophysics, Physics, and arXiv e-prints.

- [HEPDATA: Reaction Data Database](#)

HEPDATA is a database containing numerical reaction data such as cross sections (differential and total), polarization measurements, structure functions, fragmentation functions etc.

- [INSPIRE \(formerly SPIRES\): High-Energy Physics Literature Database](#)

SPIRES HEP is a joint project of SLAC, DESY & FNAL as well as the worldwide HEP community. Besides HEP search, it also offers search for HEPName,

Ask A Librarian



Please Take Our Survey

Databases to consider:

Rutgers restricted- log in through the Libraries website if not on campus

INSPEC <http://www.libraries.rutgers.edu/indexes/inspec>

Physics, biophysics, electronics, computing, materials science

IEEE Xplore <http://www.libraries.rutgers.edu/indexes/ieee>

Quantum computing, semiconductors, nanomaterials, biological physics

MathSciNet

<http://www.libraries.rutgers.edu/indexes/mathscinet>

Mathematical physics

Databases

Web of Science

http://www.libraries.rutgers.edu/indexes/web_of_science

Useful for cited reference searches

SciFinder

http://www.libraries.rutgers.edu/indexes/scifinder_scholar

Chemistry- use for condensed matter physics

- Need to create account- must be on campus, use Rutgers e-mail to register (**See [instructions for creating an account](#)**)
- After initial registration, can use off campus



Welcome to [INSPIRE](#), the High Energy Physics information system. Please direct questions, comments or concerns to feedback@inspirehep.net.

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HEP Search

High-Energy Physics Literature Database

Use "find" for SPIRES-style search ([other tips](#))

Brief format [Easy Search](#)  [Advanced Search](#)

[find j "Phys.Rev.Lett..105"](#) :: [more](#)

HOW TO SEARCH

SPIRES syntax is (mostly) supported (requires "find")

`find a richter, b and t quark and date > 1984`

`find j phys.rev.,D50,1140 or j jhep,0903,112`

`find eprint arxiv:1007.5048` (Note the plots available on the detailed record)

`find fulltext "quark-gluon plasma"` (Note new "fulltext" operator)

`find a ellis and refersto a witten` (Note "refersto")

`find a kane and citedby title SUSY and topcite 200+` (Note "citedby")

New techniques:

`4005 <date> <multicitedby>`

HEP

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INSPIRE

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RESOURCES

[ADS](#)

Easy Search Interface



Welcome to [INSPIRE](#), the High Energy Physics information system. Please direct questions, comments or concerns to feedback@inspirehep.net.

HEP :: HEPNAMES :: INSTITUTIONS :: CONFERENCES :: JOBS :: EXPERIMENTS :: JOURNALS :: **HELP**

Easy Search

Welcome to Easy Search of HEP.

Author:

Title:

Report Number:

Affiliation:

Collaboration:

Keywords:

Eprint: Any Type Number

Topcite: Don't care

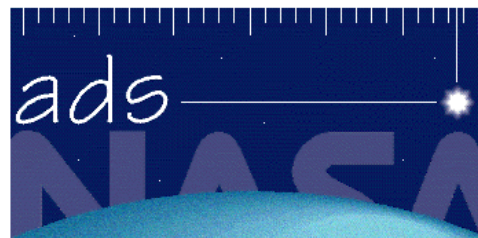
Journal: Any Journal vol: pg:

Date: until:

Search

ADS- Astrophysics Data System

<http://adswww.harvard.edu/>



The SAO/NASA Astrophysics Data System

[Search](#) [Browse](#) [Help](#)

Welcome to the Digital Library for Physics and Astronomy



This site is hosted by the
[High Energy Astrophysics Division](#) at the
[Harvard-Smithsonian Center for Astrophysics](#)



The SAO/NASA Astrophysics Data System (ADS) is a Digital Library portal for researchers in Astronomy and Physics, operated by the Smithsonian Astrophysical Observatory (SAO) under a NASA grant. The ADS maintains three bibliographic databases containing more than 11.6 million records covering publications in Astronomy and Astrophysics, Physics, and the [arXiv e-prints](#). Abstracts and full-text of major astronomy and physics publications are indexed and searchable through the new [ADS "Bumblebee" interface](#) as well as the traditional "[Classic](#)" [search forms](#). A set of [browsable interfaces](#) are also available.

In addition to maintaining its bibliographic corpus, the ADS tracks citations and usage of its records to provide advanced discovery and evaluation capabilities. Integrated in its databases, the ADS provides access and pointers to a wealth of external resources, including electronic articles available from publisher's websites, astronomical object information, data catalogs and data sets hosted by external archives. We currently have links to over 11.2 million records maintained by our collaborators.

ADS Services

- [Search](#)
- [Browse](#)
- [myADS](#)
- [Mirrors](#)
- [Feedback](#)
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Other NASA Centers

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- [HEASARC](#)
- [IRSA](#)
- [MAST](#)
- [NED](#)
- [NSSDC](#)
- [PDS](#)
- [SPITZER](#)

Related Sites

- [AAAS](#)
- [ADEC](#)
- [arXiv](#)
- [CDS](#)
- [IAU](#)

ADS- try the new Bumblebee search

<https://ui.adsabs.harvard.edu/>

Want to change your affiliation? The ADS has a software developer position open. [Apply today!](#)

astrophysics data system



Classic



Modern



Paper

INSERT FIELD: [Author](#) [First Author](#) [Abstract](#) [Year](#) [Fulltext](#) [Reviews\(...\)](#) [Citations\(...\)](#)

Search Form ▾

reviews(dark matter)



Preventing Plagiarism

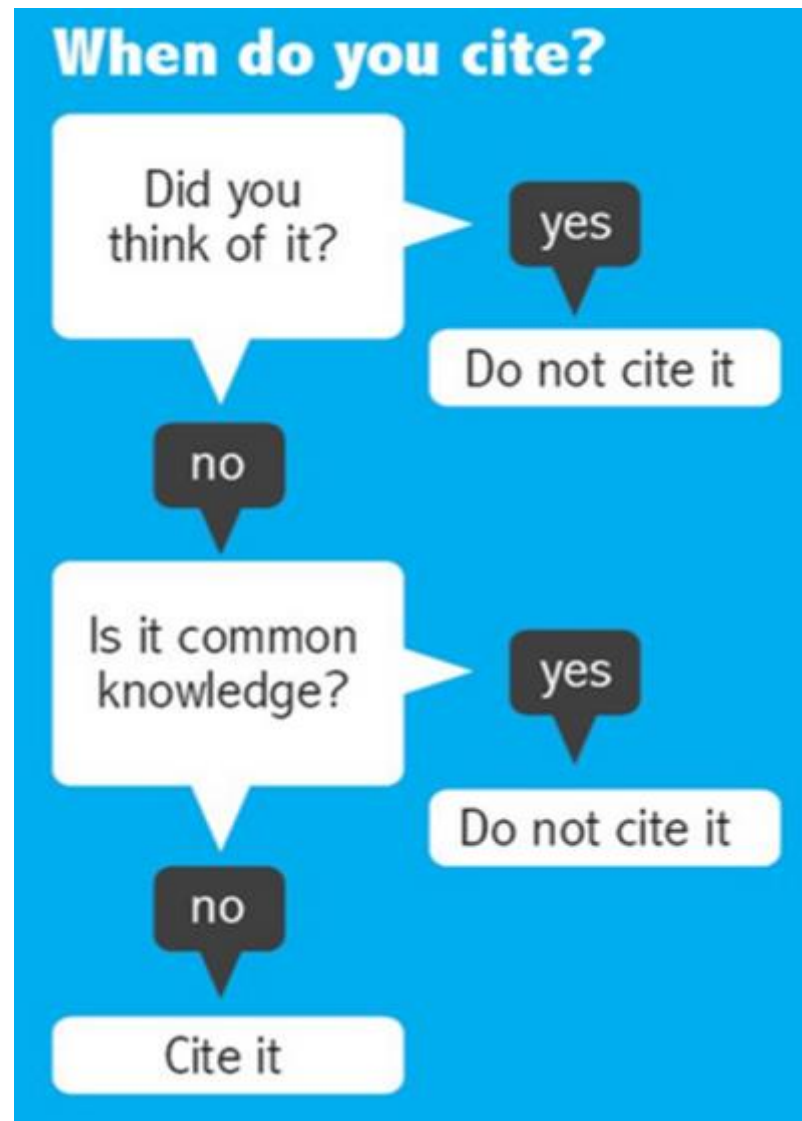
[Physics Education Research Guide](#)- may be helpful for TAs

[Harvard Guide to Avoiding Plagiarism](#)

[Rutgers Plagiarism Policy](#)

[Avoiding Plagiarism handout](#)
UNC Chapel Hill

[Resources for Preventing Plagiarism](#) University of Washington Libraries



Harris, Robert A. *The Plagiarism Handbook: Strategies for Preventing, Detecting, and Dealing with Plagiarism*. Los Angeles: Pyczak Publishing, 2001.

Citation Managers

[Comparing Zotero, Mendeley, and Endnote Web](#)

[Citation Management Tools available through Rutgers Libraries](#)

[LaTeX Basics for Students](#)



LATEX

Did you know...

Rutgers University Libraries have data experts ready to help you with:

- **Data Management Plans**
- **Guidance on Access and Preservation of Research Data**
- **Data Management Best Practices**

We can help you

Keep up with Federal requirements for public access to research data

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20502

October 31, 2016

Dear Senate and House Appropriations Committees:

This letter is submitted in fulfillment of report language incorporated by reference in Division B of the Explanatory Statement for the Consolidated Appropriations Act, 2016, Public Law No. 114-113. That statement directs the Office of Science and Technology Policy (OSTP) to report on progress at each Federal department and agency in developing, finalizing, and implementing a plan to increase public access to the results of Federally-funded scientific research. This letter provides an update since my July 2016 report to you on the progress that Federal departments and agencies have made in response to an OSTP policy memorandum issued in February 2013 on *Increasing Access to the Results of Federally Funded Scientific Research*.¹

The February 2013 OSTP memorandum directed each Federal agency with more than \$100 million in annual expenditures for conduct of research and development to develop a plan to support increased public access to the results of Federally-funded research, specifically to scholarly publications and digital data resulting from such research. Since my last report to you


Federal Requirements Timeline

 **2003** NIH Data Management Statement

 **2005** NIH public access to research data

 **2011** NSF two page Data Management Plan

 **2013** OSTP public access to data for agencies with R&D > \$100 M

 **2016** 19 Federal Departments and Agencies have completed public access plans

We can help you

Create or advise on Data Management Plans for Federal Agencies

The screenshot shows the NSF website interface. At the top left is the NSF logo with the tagline "WHERE DISCOVERIES BEGIN". To the right is a search bar and "Contact | Help" links. Below this is a navigation menu with categories: NSB, Research Areas, Funding, Awards, Document Library, News, and About NSF. The "Research Areas" menu is expanded to show "Engineering (ENG)", which is further expanded to show a list of sub-pages: Engineering (ENG) Home, About, Programs, Staff, Funding, Awards, News, Events, and Additional Resources. At the bottom of this list is "Chemical, Bioengineering, Environmental and Transport Systems (CBET)".

The main content area shows the breadcrumb "Home > Research Areas > Engineering" and action links for "Email", "Print", and "Share". The title of the page is "NSF ENG Data Management Plan Requirements". The main text states: "Proposals submitted to NSF must include a supplementary document of no more than two pages labeled 'Data Management Plan' (DMP). This supplementary document should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results. Proposals that do not include a DMP will not be able to be submitted. For more information about this requirement, please see the [Grant Proposal Guide, Chapter II.C.2.j](#) and NSF policies on [Dissemination and Sharing of Research Results](#), including Frequently Asked Questions (FAQs)."

A **Please note:** section follows, stating: "The Engineering Directorate (ENG) has additional guidance for proposals submitted to ENG programs, http://nsf.gov/eng/general/ENG_DMP_Policy.pdf. Questions about data management plans for proposals to the Engineering Directorate may be addressed to Dr. Alexandra Medina-Borja at amedinab@nsf.gov."

NSF Data Management Plans

An **NSF DMP consists of 5 components**, which describe:

- **Products of research:** spectra, diffraction patterns, physical properties, computational strategies, software, numerical results, etc.
- **Data Format:** instrument output, html, file types- .jpg, .tif... Conversions may be necessary. File names and versions should be standard. Metadata is required.
- **Access to Data and Data Sharing Practices and Policies:** how your data will be made freely accessible. Websites, HEP Data, SIMBAD Astronomical Database...

DMP components

- **Policies for Re-Use, Re-Distribution, and Production of Derivatives:** Who will be able to use your data? Will there be disclaimers on your website? Conditions concerning publication?
- **Archiving of Data:** How will it be preserved? Will hardcopies be transferred to digital format? Will digital media be migrated? Software? How long will the data be retained?

This is a simplified list from NSF - see your directorate
<https://www.nsf.gov/staff/orglist.jsp>

We can help

Provide resources for data management preservation and access

MENU ▾

SCIENTIFIC DATA



Search



E-alert



Submit



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Recommended Data Repositories

Scientific Data mandates the release of datasets accompanying our Data Descriptors, but we do not ourselves host data. Instead, we ask authors to submit datasets to an appropriate public data repository. Data should be submitted to discipline-specific, community-recognized repositories where possible, or to [generalist repositories](#) if no suitable community resource is available.

Repositories included on this page have been evaluated to ensure that they meet our requirements for data access, preservation and stability. Please be aware, however, that some repositories on this page may only accept data from those funded by specific sources, or may charge for hosting data. Please ensure you are aware of any deposition policies for your chosen repository. If your repository of choice is not listed please see our [guidelines for suggesting additional repositories](#).

Authors must deposit their data to a recommended data repository as part of the manuscript submission process; manuscripts will not otherwise be sent for review. If data have not been deposited to a repository prior to manuscript submission, authors can upload their data to figshare or the Dryad Digital Repository during the submission process. Data may also be deposited to these resources temporarily, if the main host repository

Resources – Rutgers University Libraries

Research Guides- Science Data for Grad Students

http://libguides.rutgers.edu/grad_sciencedata

This screenshot shows the 'Science Data Management for Grad Students: Home' page. The navigation bar includes 'Find', 'Services & Tools', 'Help', 'Places & Spaces', and 'About'. The main content area features a search bar and a breadcrumb trail: 'Library > Research Guides > Science Data Management for Grad Students > Home'. Below the search bar, there are tabs for 'Home', 'Organize/Store', 'Share/Preserve', 'Data Management Plans', and 'Electronic Lab Notebooks'. The page is divided into several sections: 'Did you know...' with a text box about data experts, 'Your goals as a researcher' with a bulleted list of tasks (Organize, Store and backup, Preserve, Share), and 'eScience: the Fourth Paradigm' with a book cover image. A 'Chemistry & Physics Librarian / Science Data Specialist' profile for Laura Palant is also visible.

This screenshot shows the 'Data Management: Home' page. The navigation bar is similar to the previous page. The breadcrumb trail is 'Library > Research Guides > Data Management > Home'. Below the search bar, there are tabs for 'Home', 'Creating the Plan', 'Documenting Your Data', 'Publishing Your Data', 'Data Maintenance', 'Provenance and Open Data', and 'More Links'. The page is divided into several sections: 'Data Management Workshops' with a list of topics (Reproducible Research, Best Practices for Managing Your Data, Data Management Plans and Data Sharing), 'Why Data Management?' with a text box and a bulleted list of benefits (Contact research efficiently, Simplify file use and reuse, Increase your research visibility, Meet funding agency requirements, Preserve and provide access), and 'Data Librarian' profile for Ryan Wernick.

We can help you with

Good Data Management practices



Site



DataONE Search

[About](#)[News](#)[Participate](#)[Resources](#)[Education](#)[Data](#)[Home](#) » [Resources](#) » [Best Practices](#)

Resources

Tools

[Investigator Toolkit](#)[Data Management Planning](#)[Software Tools Catalog](#)

Materials

[Publications](#)[Best Practices](#)[Data Life Cycle](#)[Librarian Outreach Kit](#)[Developer Resources](#)[Research Notebooks](#)

Best Practices

The DataONE Best Practices database provides individuals with recommendations on how to effectively work with their data through all stages of the data lifecycle. Users can access best practices within the database by either clicking on a stage of the lifecycle or selecting keywords under [search](#).

[Best Practices Primer](#)

For students and others new to data management, we provide a [Best Practices Primer](#) as an introduction to the DataONE Best Practices database and data management in general.

[Public Participation in Science Research Data Management Guide](#)

We also provide a [Data Management Guide](#) written specifically for the Citizen Science community that takes the users through the steps of the data lifecycle and links to various DataONE Best Practices online.

Would someone else be able to find your work?

- Cite your data: Digital Object Identifiers
- Register for an ORCID id:

Open **R**esearcher and **C**ontributor **ID**

[What is ORCID?](#)

[Register for an ORCID id](#)

<http://orcid.org>



Image from orcid.org



Thank you!

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@LauraBPalumbo