

# Information Skills for Maths 4Y and MSc students

---

Alessandra Vetrugno  
Lead Librarian for Physical and  
Applied Sciences  
Radcliffe Science Library



# The Radcliffe Science Library (RSL)

- One of the Bodleian Libraries
- The University's main science library
- Legal deposit library for science material
- All scientific subjects covered apart from Clinical Medicine
- <https://www.bodleian.ox.ac.uk/libraries/rsl>



# Plan for this session

---

SOLO (Searching Oxford Libraries Online)

---

Where to find useful resources for your subject

---

Searching bibliographic databases

---

Referencing



# SOLO: Search Oxford Libraries Online

thermodynamics and statistical mechanics|

✕ Search Everything 🔍

ADVANCED SEARCH

## Sort & Filter Results

Include results without full-text access

Sort by Relevance ▾

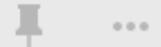
Show only: ^

Available Online

Open Access

SELECT ALL 0 selected PAGE 1 1-10 of 38,436 Results ▾

 Save query



1



MULTIPLE VERSIONS

**Thermodynamics and statistical mechanics**

Seddon, John M.; Gale, Julian D.

 3 versions of this record exist. See all versions >

2



BOOK

**Thermodynamics and statistical mechanics**



## Searching a title on SOLO

- Type the title in the search box.
- Remember to "Search everything".
- Click on a title to see availability information.

# Availability in different formats

1



BOOK

## Thermodynamics and statistical mechanics

Seddon, John M. | Gale, Julian D.

c2002 | New York : Wiley-Interscience | viii, 161 p. : ill. ; 25 cm.

[Find & Request >](#)



Printed – Read/borrow at the library

2



BOOK

## Thermodynamics and statistical mechanics

Seddon, John M. | Gale, Julian D.

2001 | Cambridge : Royal Society of Chemistry | viii, 161 p. : ill. ; 25cm.

 COURSE

[Find & Request >](#)



3



BOOK

## Thermodynamics and statistical mechanics

Seddon, John M. | Gale, Julian D.

[E-book – Read on-line 24/7](#) y of Chemistry | 1 online resource (viii, 159 pages) : illustrations (some color)

 [Online Access >](#)



chemistry & industry

✕ Oxford Collections 🔍

ADVANCED SEARCH

Sign in to get complete results and to request items [Sign in](#) | ✕ DISMISS

⏪ BACK TO RESULTS LIST Showing list of versions

SELECT ALL 0 selected 1-2 of 2 Results

1  JOURNAL **Chemistry and industry.**      
Society of Chemical Industry (Great Britain)  
1932 | London : Society of Chemical Industry | Print began with v. 10, no. 1 (Jan. 1, 1932).  
 PEER REVIEWED  
**● Online Access >**

2  JOURNAL **Chemistry and industry**      
Society of Chemical Industry (Great Britain)  
1932 | [Oxford] : Wiley-Blackwell | Print version began with v. 10, no. 1 (Jan. 1, 1932). | v. : iLL ; 30 cm.  
**● Electronic legal deposit item – available via eLD SOLO Browser on Bodleian Libraries reading room PCs only >**  
**UK legislation regulates access - why?**

2  JOURNAL **Chemistry & industry.**      
Society of Chemical Industry (Great Britain)  
[1943]- | London : Society of Chemical Industry | Vol. 62 (1943)- | v. ; 27 cm.  
**Find & Request >**

**Regular e-resource**  
✓ Access anywhere  
✓ Download articles  
✓ Easy printing

**E-Legal deposit**  
✗ Access *only* in Bodleian libraries  
✗ No downloading  
✗ Print via PCAS only

Print version  
Read/borrow at the library

# Items in the offsite storage

TOP

EXPORT OPTIONS

FIND & REQUEST

DETAILS

LINKS

BROWSE RELAT...

TAGS

## Find & Request

**Before requesting, check other libraries you can use for a copy you can access more quickly from open shelves. Which libraries can I use?**

[← BACK TO LOCATIONS](#)

### LOCATION ITEMS

Bodleian Offsite Storage

Holdings: 1993-2006:Mar. 2,v.80:no.6(2016) [incomplete]



Item in place Use in Library Only (0 requests)	Must request delivery - Journals v.80:no.6(2016)	<a href="#">Request Options</a>	<a href="#">Scan &amp; Deliver</a>	▼
Item in place Use in Library Only (0 requests)	Must request delivery - Journals v.81:no.4(2017)	<a href="#">Request Options</a>	<a href="#">Scan &amp; Deliver</a>	▼
Item in place Use in Library Only (0 requests)	Must request delivery - Journals 1993-1996 [incomplete holdings]	<a href="#">Request Options</a>	<a href="#">Scan &amp; Deliver</a>	▼
Item in place Use in Library Only (0 requests)	Must request delivery - Journals 1997-1998 [incomplete holdings]	<a href="#">Request Options</a>	<a href="#">Scan &amp; Deliver</a>	▼

# Subject specific Resources

Where do you go to get  
information?



# Research papers



Journals / Conferences



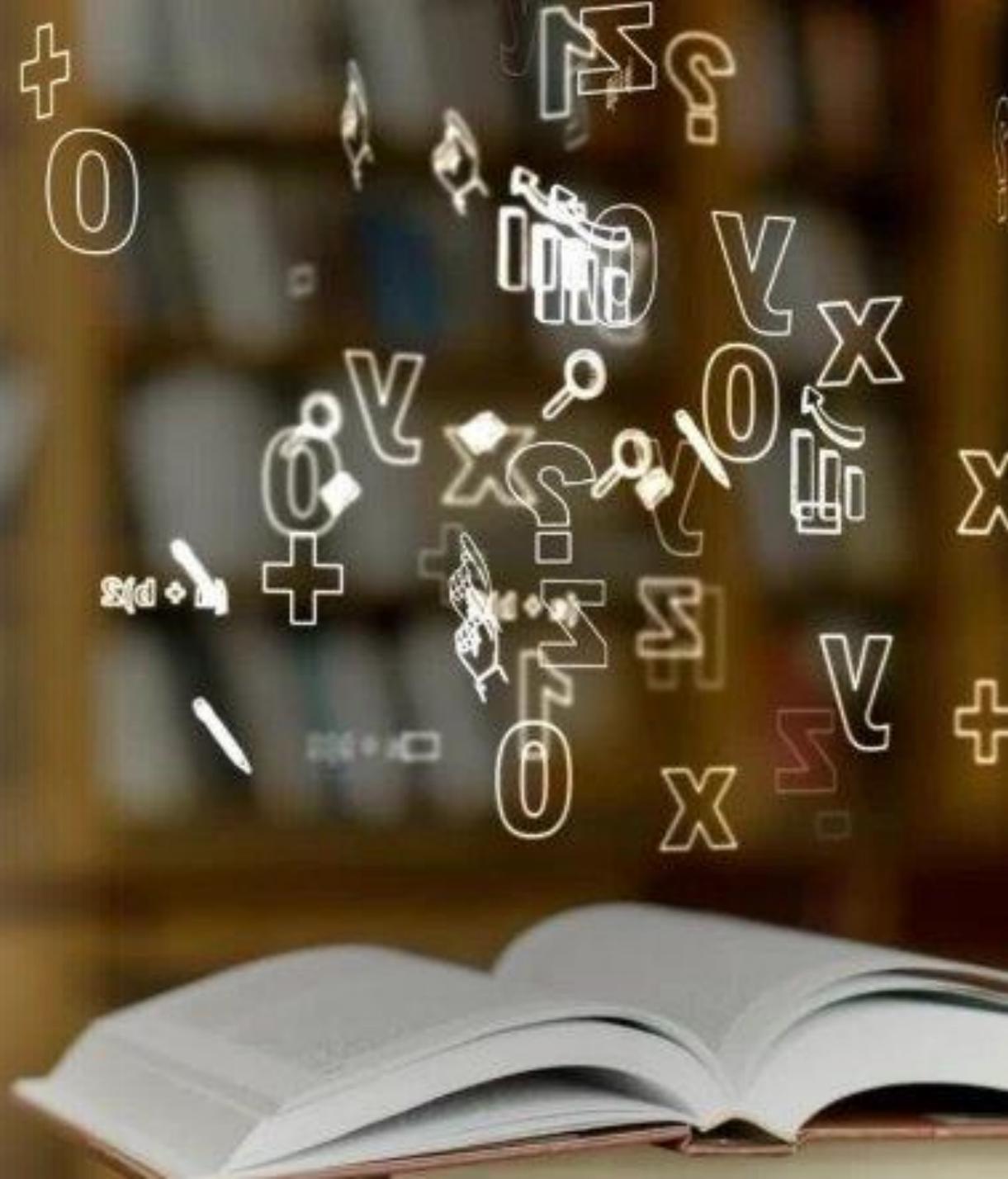
Latest research and in-  
depth information



Useful for your final  
project

---

# Searching bibliographic databases



# Bibliographic databases



Books (often  
chapter level  
indexing)



Journals



Conferences



Patents



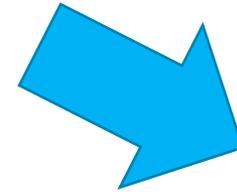
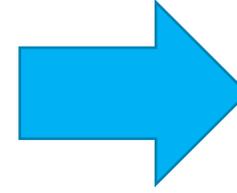
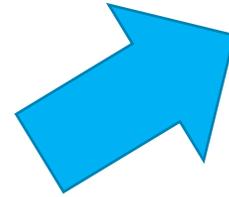
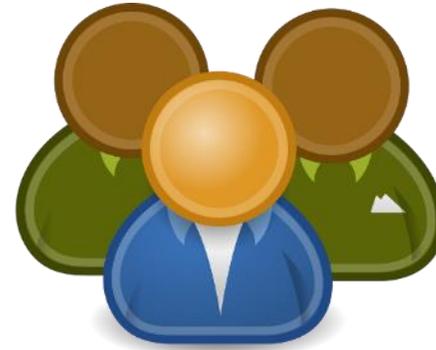
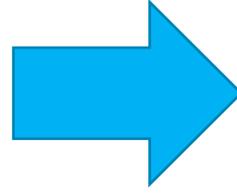
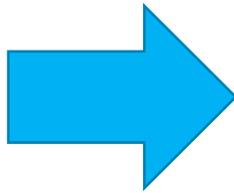
Grey literature

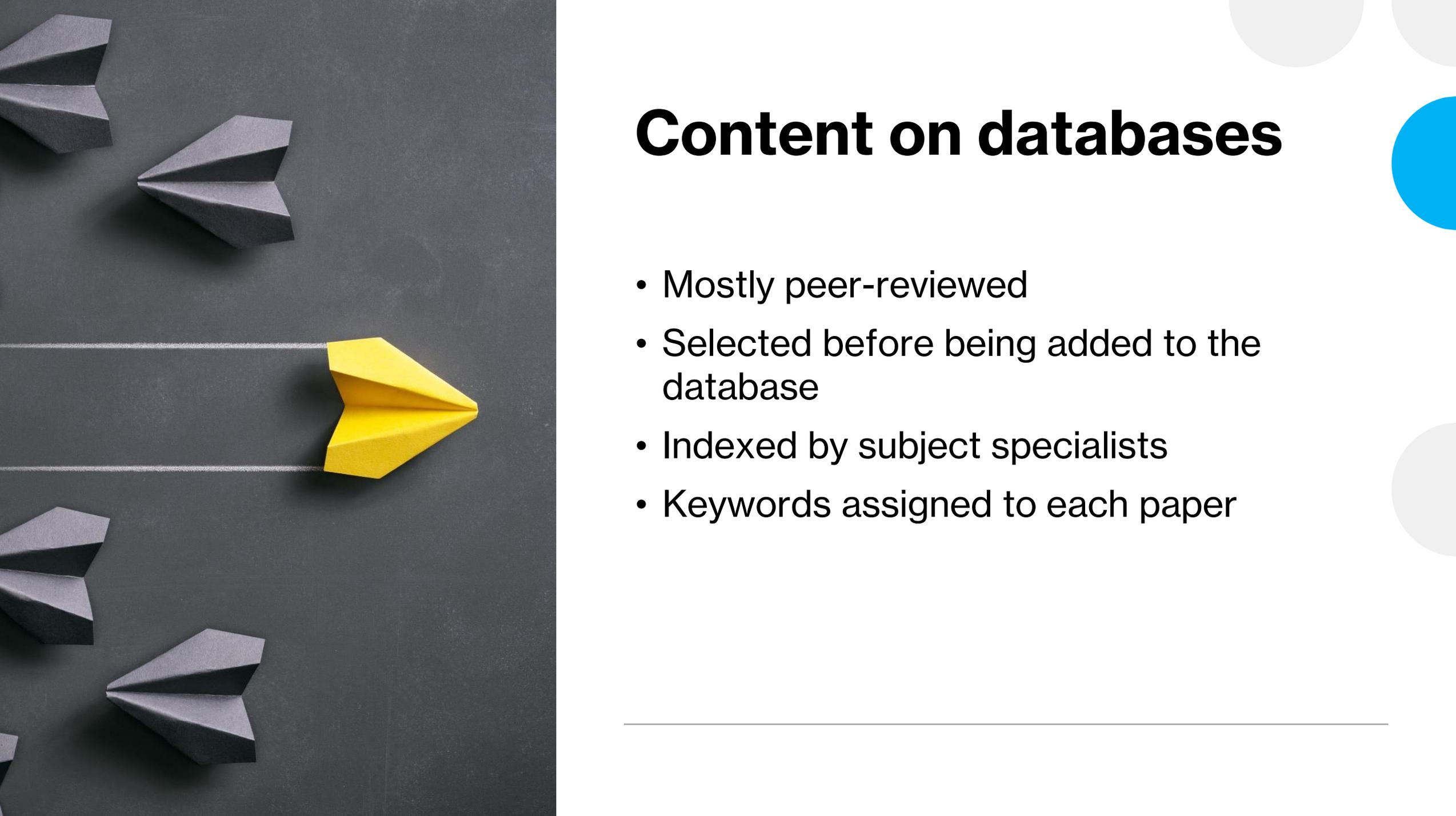


Pre-prints

# About Peer review

- Academic journals usually use a **peer review** process to provide a level of 'quality control' on research papers they publish.



The slide features a dark grey background on the left side with several paper airplanes. One yellow paper airplane is positioned in the center, with a white line extending from its tail to the left edge of the frame. On the right side, there are decorative elements including a large blue circle and several light grey circles of varying sizes.

# Content on databases

- Mostly peer-reviewed
  - Selected before being added to the database
  - Indexed by subject specialists
  - Keywords assigned to each paper
-

# Structuring a search

1

## **Understand your question**

- Background reading around your topic & have a clear question

2

## **Identify keywords**

- Words that will help you find sources related to your research topic

3

## **Construct your search**

- Put your search terms together using Boolean logic

4

## **Carry out your search**

- Enter your search string into a suitable literature database

5

## **Store and export your results**

- Extract useful papers from your results and store the details



# Break down a research question into concepts

- **Concepts** are the broad themes your question deals with.
- A concept could be a particular process, resource, material or device, or a particular outcome you are interested in.
- Using concepts often helps clarify the question you are trying to ask and **makes searching easier!**

	Concept 1 - Method	Concept 2- Disease	Concept 3 - Outcome	Concept 4 -
Keywords				

# Keywords

## Keywords **ARE**

- The main topic words that will be the focus of your search.
- They will help you find relevant literature in databases.

## Keywords are (usually) **NOT**

- Descriptive, relational or action words e.g. advantages/disadvantages, compare, contrast, analyse etc.



# Adding the keywords

- Think about the keywords that fit under each concept.

Mathematical Modelling of Cancer Therapy

	<b>Concept 1 - Method</b>	<b>Concept 2- Disease</b>	<b>Concept 3 - Outcome</b>	<b>Concept 4 -</b>
<b>Keywords</b>	Model "Mathematical model*"	Cancer Tumor Neoplasm	Treatment Therapy Chemotherapy	

# Wildcards and Phrases

Wildcard symbols for word variants:

## **Truncation:**

*model\* for models, modelling...*

## **British and American spelling:**

*characteri?ation*

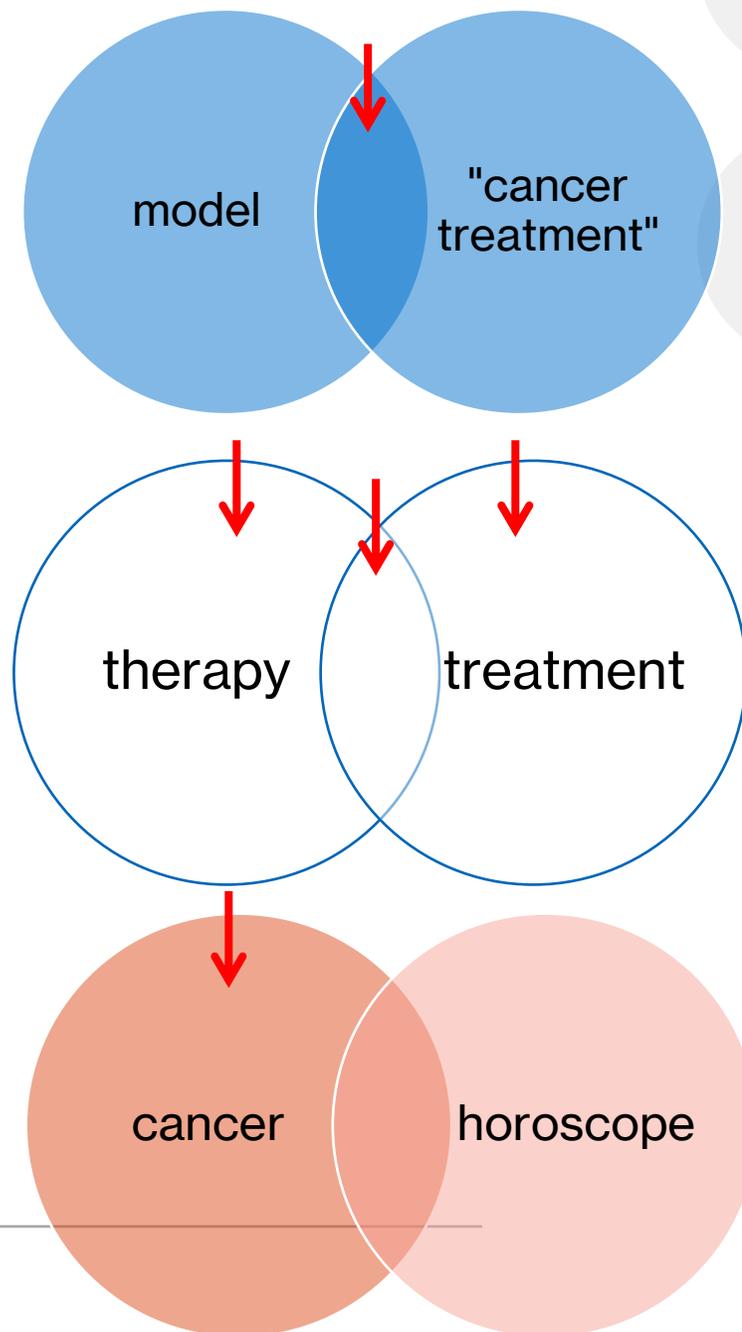
## **Phrases:**

*"Tumor growth"*



# Boolean operators

- **AND** – narrows down
- **OR** – broadens out
- **NOT** – excludes



**OR: synonyms and keywords for the same concept:**

Cancer OR Tumor OR Neoplasm

**AND: different concepts:**

- Model\* OR "Mathematical model"

**AND**

- "Cancer OR Tumor OR Neoplasm"

# Combining Boolean operators

---

# Scopus

*One of our most popular databases for finding scientific literature.*

- 100+ million records
- 404+ thousand books indexed
  
- Journal articles
- Conference papers
- Preprints
- International patent records



## Start exploring

[Documents](#) [Authors](#) [Researcher Discovery](#) [Organizations](#) [Search tips](#)

Search within Article title, Abstract, Keywords	Search documents *
AND	
Search within Article title, Abstract, Keywords	Search documents
<a href="#">+ Add search field</a> <a href="#">Add date range</a> <a href="#">Advanced document search</a>	

# MathSciNet

- Database from the American Mathematical Society (AMS)
- Includes signed reviews by experts, not just abstracts
- Uses the *Mathematics Subject Classification (MSC)*



[Show Search History](#)

[Show All Fields](#)

Search Terms

Author	<input type="text" value="Author search term"/>	AND
Author or Related	<input type="text" value="Author or Related search term"/>	AND
Title	<input type="text" value="Title search term"/>	AND
Review Text	<input type="text" value="Review Text search term"/>	

Time Frame

All Time  
 = Year   
 Year Range  to

Publication Type

All  
 Books  
 Journals

# Other useful databases

- Web of Science Core Collection
- ACM Digital Library
- Find more relevant databases on your [Research guide](#)



# Research Guide for Mathematics: Home

Subjects: [Mathematics](#)

Search this Guide



Home

Books

Journals and Conference Proceedings

Databases

Dissertations

Keeping up-to-date

Training

## Purpose of this guide

This guide is intended for students and researchers studying Mathematics at the University of Oxford, although students and researchers from any field may find it useful. Use this guide to find out about books and online resources for Maths, including ebooks, ejournals, bibliographic databases.

## Finding books for Mathematics

Oxford has a wide range of ebooks for Mathematics and printed books, including the main science collection in the [Radcliffe Science Library](#). For more detailed info about our book collections visit our [books page](#) of this guide.

- [SOLO](#)  
Search SOLO, the University's resource discovery tool, for print and ebooks at Oxford. You can search by author, title or subject and limit to a specific library or online.
- [SOLO user guide](#)  
If you need help with SOLO, take a look at

# Research Guides

<https://libguides.bodleian.ox.ac.uk/subjects>

## Key journals

A lot of journals, as well as being available in print, are available online and can be searched via SOLO or ejournals A-Z. Below are some of the top journals for Mathematics help, but you can find a longer list on the [journals page](#) of this guide.

## Lead Librarian, Physical and Applied Sciences



Alessandra Vetrugno

Email Me

# Databases A-Z

<https://libguides.bodleian.ox.ac.uk>

**BODLEIAN LIBRARIES**  
UNIVERSITY OF OXFORD

Subject and research guides

[Bodleian Libraries](#) / [Oxford LibGuides](#) / [Databases A-Z](#)

## Databases A-Z: Engineering

Find the best library databases for your research.

Engineering (40) All Database Types All Vendors / Providers Search for Databases Go

All A B C D E F G H I J K L M N O P Q R S T U V W X Y Z #

### 40 Databases found for Engineering

[Clear Filters/Browse All Databases](#)

#### A

[American Institute of Aeronautics and Astronautics \(AIAA\) meeting papers](#) [more...](#)

[ASTM Compass](#) [more...](#)

#### B

[British Standards Online](#) [more...](#)

To access this resource off-campus, please visit <https://federation.bsigroup.com/start-session?entityID=https://registry.shibboleth.ox.ac.uk/idp>

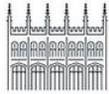
**LIVE CHAT (click to open)**

#### Use of Oxford e-resources

Oxford subscribes to a wide range of e-resources, e-journals and e-books to support your research and study. Use of these is governed strictly by licence agreements.

Remember:

- E-resources may be used for study and research but NOT for commercial purposes
- You may NOT share your password or pass content from e-resources to anyone else
- Systematic downloading or viewing of excessive amounts of data is strictly



Bodleian Libraries  
UNIVERSITY OF OXFORD

FIND JOURNAL BY TITLE, SUBJECT, OR ISSN

BROWSE SUBJECTS

Arts and Humanities

Biological Sciences

Biomedical and Health Sciences

Business and Economics

Earth and Environmental Sciences

Engineering and Technology

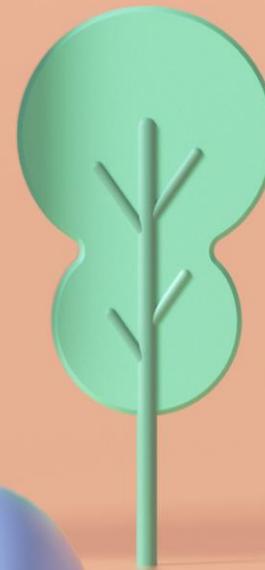
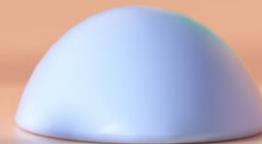
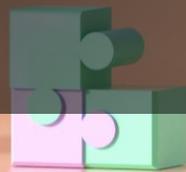
History

Law and Legal Studies



# Browzine

# Live Demo: Searching databases



# Google Scholar

- Great when unsure about article details or journal abbreviations
- [Find it @ Oxford](#)
- [Google Scholar Button](#)



# Google Scholar at Oxford

---

Selecting **Settings** from the top of the [Google Scholar Home Page](#)

---

Select **Library Links**

---

Searching for **University of Oxford** and selecting it from the list

---

Saving your settings

---

You will now see '**Find it @ Oxford**' links next to items in your Google Scholar results that you can use to access the full-text provided by library subscriptions.

Cross-system comparisons of soil nitrogen transformations and nitrous oxide flux  
in **tropical forest ecosystems**

PA Matson, PM Vitousek - *Global Biogeochemical Cycles*, 1987 - Wiley Online Library

Abstract Soil nitrogen transformations and nitrous oxide flux across the soil-air interface

were measured in a range of **tropical forest** sites in Costa Rica, Brazil, and Hawaii. Nitrogen

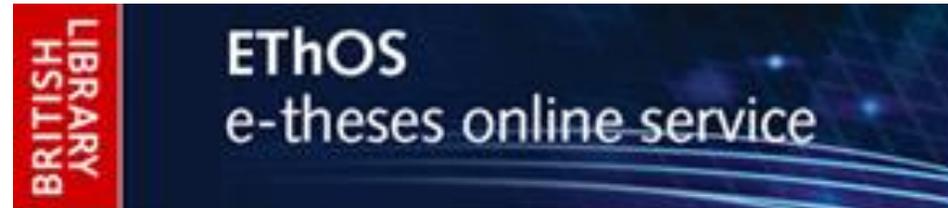
Find it @ Oxford

# Theses

**Oxford:** [SOLO](#) & [ORA](#)

**Non-Oxford:** [EThOS](#), [DART-Europe](#)

**Worldwide:** [Proquest Dissertations and Theses Global](#)





Open-access repository for electronic preprints



Researchers share new results before peer review



Latest research



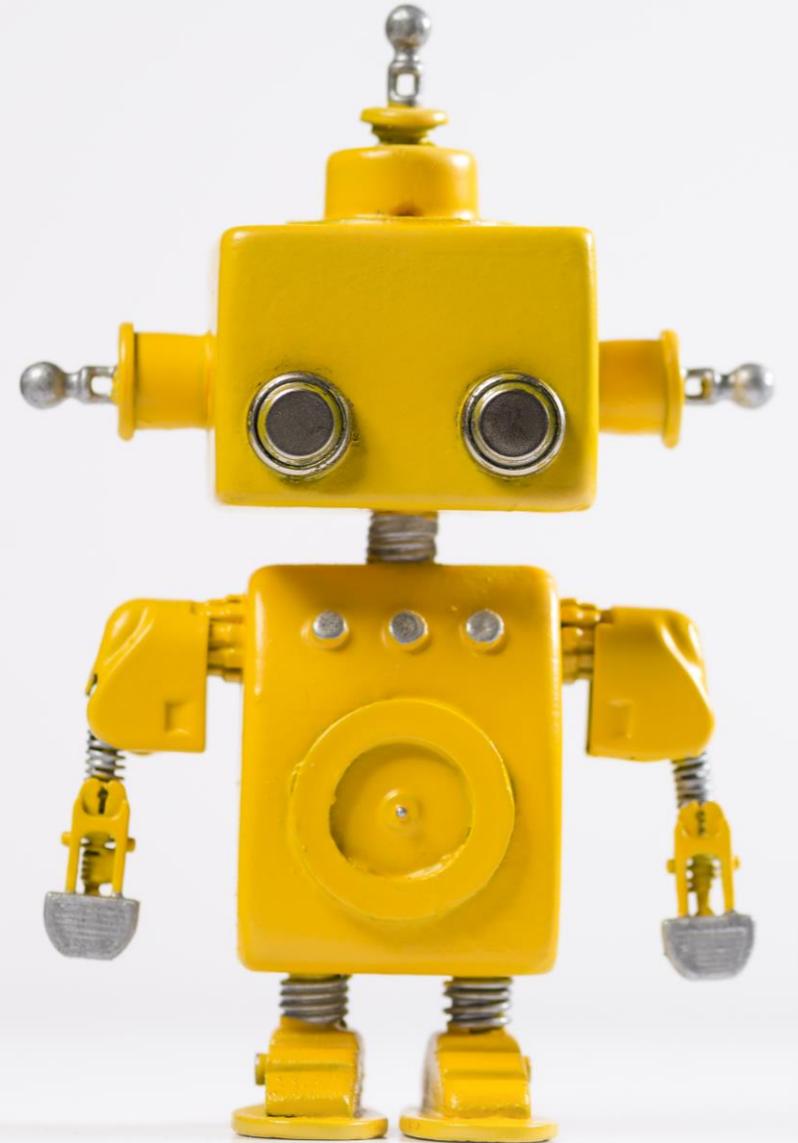
Not peer-reviewed: You must critically evaluate the reliability yourself.

# arXiv



# What about AI?

- Use AI tools in assessed work only if you have permission
- Fact-check answers from AI tools!
- Can provide references to non-existent sources.
- Can't replace, careful, critical reading and thinking.
- More guidance here - <https://www.ox.ac.uk/students/life/it/gen-ai>



# ChatGPT EDU

- Access to ChatGPT Edu for all students and staff
- Designed for use in higher education
- Enhanced privacy, security, and GPT-5 model
- Training and support available

<https://www.ox.ac.uk/students/life/it/faqs-gen-ai-tools>

Free **upcoming training**:

[Online courses](#) – via Teams

[In-person courses](#) – at IT Services, Banbury Road

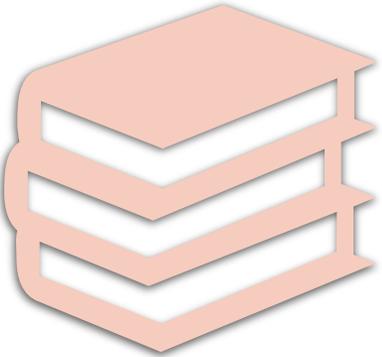
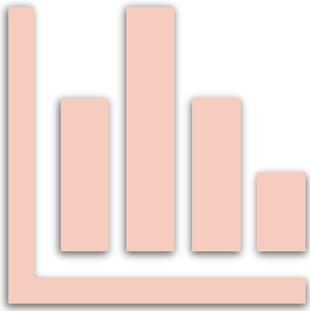
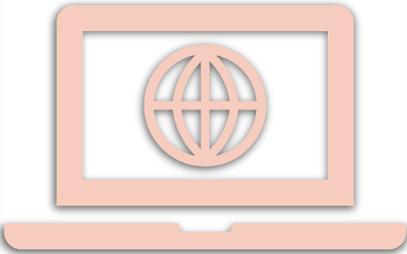


# Referencing



# What does 'referencing' mean?

- Acknowledging/crediting information from other people and sources that you've used in your own work.

			
A quote from a book.	Data from a research article.	AI tools you have used.	An image or picture.

# In-text citations and Reference List

## Essay Assignment

The programming language C was first developed in the 1970s on UNIX based computer systems (Kernighan & Ritchie, 1988, p. 1). The language has...

An in-text **citation** to a source is included in the main text

## References

(1988). *The C programming language* (2<sup>nd</sup> ed.). Prentice

Ker  
Hal

# In-text citations and Reference List

## Essay Assignment

The programming language C was first developed in the early 1970s for Bell Telephone Laboratories systems (Kernighan & Ritchie, 1988, p. 1). The language

A full **reference** at the end of the document contains the information required to describe the source

## References

Kernighan  
Hal

An in-text **citation** to a source is included in the main text

(1988). *The C programming language* (2<sup>nd</sup> ed.). Prentice

# Why do we need to reference?



Supports your arguments with **evidence** and **examples**



Gives others **credit** and **recognition** for their work



**Avoids plagiarism**, by clearly showing where you have used the ideas of others



Demonstrates the **quality** of resources you have used and your own **knowledge** of the subject

# Useful resources on referencing and plagiarism

- [Cite them right online](#)
- [OU web page on plagiarism](#)
- [Avoiding Plagiarism online course](#)

# Reference Managers

- **Reference management software** helps you store and organise your references.
- They can **create** in-text citations and reference lists.
- Free subscription to [Refworks](#)
- Free [Endnote download](#)
- Find out more - <https://libguides.bodleian.ox.ac.uk/reference-management>



---

Most reference managers can import and export BibTeX (.bib) files

---

Additional functionality varies

---

Automatic generation of cite-keys

---

Automatic generation of **/cite** commands for easy copy-and-paste into LaTeX scripts

Latex and  
reference  
managers

# Jabref

- Open source citation management software for BibTeX
- Runs on Windows, Mac and Linux
- Freely downloadable at <https://www.jabref.org/>

NB. The University has a subscription to the online LaTeX editor [Overleaf](#)



More  
information?

- 
- [Managing Your References guide](#)
    - Details of each package
    - Comparison table of features
    - Instructions for Latex & reference managers

Questions?





Thank you!

For any questions email me:

[alessandra.vetrugno@bodleian.ox.ac.uk](mailto:alessandra.vetrugno@bodleian.ox.ac.uk)

Please fill in our online feedback survey on this session

<https://forms.cloud.microsoft/e/NUUhtSEz0s>

