

Navigating Scientific Resources & Staying Organized

MESSAGES

Public Chat

NOTES

Shared Notes

USER MANAGEMENT

Waiting Users

USERS (2)

Klára Hutková (You)

Barbora Šátková

Start a private chat

Away

Raise

Undecided

Confused

Sad

Happy

Applaud

Thumbs up

Thumbs down

Message Public Chat

Welcome to the NTK Conference System

Klára Hutková Barbora Šátková

NTK
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Národní technická knihovna
National Library of Technology

Make presentation full screen

Navigating Scientific Resources & Staying Organized

Making It Easier to Write a Ph.D. Dissertation, Article, or Proposal

March 2023 Barbora Šátková, Klára Hutková

All videos are turned off by default.
Your microphone can be turned on here.

Slide 2 100%

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Navigating Scientific Resources & Staying Organized

Making It Easier to Write a Ph.D. Dissertation, Article, or Proposal

March 2023

Barbora Šátková, Klára Hutková

Which University Are You from?

- A. Czech Technical University in Prague
- B. University of Chemistry and Technology Prague
- C. Czech University of Life Sciences Prague
- D. Charles University
- E. Other


Agenda

1. Searching: Introduction
2. Google Scholar
3. Library Resources & Full Text Access
4. Types of Sources
5. Reading & Organizing Sources
6. Publishing and Presenting of the Outputs

1.SEARCHING: INTRODUCTION

Keywords (for Searching)

- Which keywords in your subject area are used by other authors?
- Is there a thesaurus/dictionary for your field?
 - [MeSH](#) (Medical Subject Headings)
 - [IEEE Thesaurus and Taxonomy](#)
 - [Mathematics Subject Classification](#)
 - [The Transportation Research Thesaurus](#)
 - [INSPEC Thesaurus](#) (after login)
- Other useful tools:
 - [Wikipedia](#) (translation of terms, fact checking,...)
 - [Google Scholar](#)



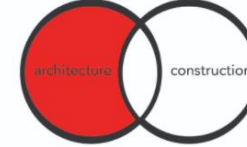
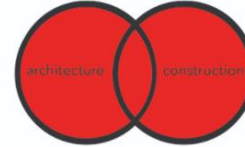
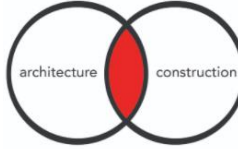
| | |
|----------------------------|---------------------|
| Affective computing | |
| BT: | Artificial |
| intelligence | |
| | Human computer |
| interaction | |
| RT: | Behavioral sciences |
| | Cognitive systems |
| | Emotion recognition |
| | Human factors |
| | Psychology |

Which of These Techniques Do You Use Most Often when Searching?

- A. AND, OR, NOT/-
- B. Phrase searching (“”)
- C. Truncation (*/?/...)
- D. Advanced search & filters (search engine tools)
- E. None of the above

Database Search Tips

- AND, OR, NOT/-
- Phrase searching
- Truncation
- Filters
- Advanced search



“”

*



- (author, title, abstract, full text, other)

→ [More database tips](#)

Where Do You Go First when Searching for Information Related to Your Writing?

- A. Google
- B. Google Scholar
- C. University Library Searching Tool (“Discovery”)
- D. Web of Science or Scopus search
- E. Article databases (Elsevier, Nature, EBSCO, Springer, IEEE, ScienceDirect, and others provided by libraries) or open access full-text and pre-print collections (such as arXiv, PubMed, ResearchGate, repositories)

Search Tools for Scientific Resources

- **Search engines**

- [Google Scholar](#)
- Library discovery tool ([NTK](#), [chemTK](#), [CTU](#))

...searching through multiple databases and collections mentioned below

- **Article/book databases**

- Paid databases (eg. [IEEE](#), [ScienceDirect](#), see [library subscribed databases](#))
- Open databases and journals (eg. [DOAJ](#), [PubMed Central](#) and [others](#))

- **Preprint collections** on servers as [arXiv](#), [ResearchGate](#), [Academia.edu](#) or [institutional repositories](#)

- **Citation databases** [Web of Science](#) and [Scopus](#) (no full text, but links to full text)

- & **P2P servers** as [Sci-Hub](#), [LibGen](#), Ulož.to




Using ChatGPT as a Search Tool?

- AI-powered chatbot, Large Language Model (LLM)
- Ability to analyse large amounts of data and generate text based on probability
- Released by OpenAI in November 2022
- Similar tools exist (released or in testing-phase): Bing and Edge Search (Microsoft), Bard (via LaMDA by Google), Ernie Bot (Baidu), and others
- Outputs: e.g., essays, poems, recipes, code, music, lists of sources (?)
- Ongoing debate about it's use in academia, esp. research integrity & ethics
- Errors: some obvious, others not (hallucination = confident wrong answer)
- **Searching for academic resources currently not its strong suit**

Example of a ChatGPT Search

K Give me a list of eight most highly cited academic resources on quantum mechanics and string theory. Provide full bibliographic detail for each with hyperlinks to the resources (DOI or other stable URL, if possible).

< 2 / 2 >  Certainly! Here are eight highly cited academic resources on quantum mechanics and string theory, including journal articles and books, along with their full bibliographic details and stable URLs:

1. "A Brief History of Time" by Stephen Hawking (1988). This seminal book explores the history of physics and the universe, including key concepts in quantum mechanics and relativity. DOI: <https://doi.org/10.1038/334105a0>




2. "Black Holes and Information Loss" by Stephen Hawking (2005). This influential paper discusses the problem of information loss in black holes, which has implications for both quantum mechanics and general relativity. DOI:


<https://doi.org/10.1103/PhysRevD.72.084013>



ChatGPT


We'd love your feedback!

 This system is optimized for dialogue. Let us know if a particular response was good or unhelpful.

 Share your feedback in our [Discord server](#).

[Published: 14 July 1988](#)

~~The potential of vorticity~~

[Thomas Keffer](#) 

[Nature](#) **334**, 105–106 (1988) | [Cite this article](#)

Information loss in black holes

S. W. Hawking
Phys. Rev. D **72**, 084013 – Published 18 October 2005

An article within the collection: [The Work of Stephen Hawking in Physical Review](#)



Do you want to try a ChatGPT Search?

- ChatGPT's abilities may defer from field to field & it is constantly learning
- You can try searching for a topic you know well using the following tips:
 - Try different commands:
 - “seminal/highly cited”
 - sources/articles/books/publications
 - “provide full bibliographic detail”
 - “provide DOI or stable URL”
 - Try reloading the conversation if you are not happy with the results or if it crashes
 - You can compare the search results to those in other databases (Scopus, WoS)
 - But **do not rely on the results**

2. GOOGLE SCHOLAR

Library Links

Google Scholar

Articles

About 463 results (0.03 sec)

Any time
Since 2022
Since 2021
Since 2018
Custom range...

Sort by relevance
Sort by date

Any type
Review articles

include patents
 include citations

Create alert

Performance of a Micro-Scale Membrane Reactor for Greywater Treatment at Household Level



[V Diamantis](#) - Membranes, 2021 - mdpi.com

... The aim of this study is to develop a micro-scale household **greywater treatment** system, based on the **membrane reactor** technology, for possible installation under the wash basin or ...

★ Save [🔗](#) Cite Cited by 2 Related articles All 9 versions Web of Science: 1 Import into EndNote [🔗](#)

[HTML] mdpi.com
Full text @ NTK

Fouling control of a membrane coupled photocatalytic process treating greywater



[M Pidou](#), [SA Parsons](#), [G Raymond](#), [P Jeffrey](#)... - Water Research, 2009 - Elsevier

... Comparison between the current system and more traditional hybrid **membrane reactor** ... 1 with the fouling profile for an MBR **treating greywater**. At fluxes below 25 LMH the fouling ...

★ Save [🔗](#) Cite Cited by 85 Related articles All 17 versions Web of Science: 47 Import into EndNote [🔗](#)

[PDF] academia.edu
Full text @ NTK

A low energy gravity-driven membrane bioreactor system for grey water treatment: Permeability and removal performance of organics

[A Ding](#), [H Liang](#), [G Li](#), [I Szivak](#), [J Traber](#)... - Journal of Membrane ..., 2017 - Elsevier

... The aims of this study were therefore: (1) to evaluate if it is possible to operate a **grey-water membrane reactor** in a stable manner without any aeration; (2) to understand how the ...

☆ Save [🔗](#) Cite Cited by 76 Related articles All 6 versions Web of Science: 51 Import into EndNote [🔗](#)

[PDF] lib4ri.ch
Full text @ NTK

Greywater treatment using an oxygen-based membrane biofilm reactor: formation of dynamic multifunctional biofilm for organics and nitrogen removal

[Y Zhou](#), [R Li](#), [B Guo](#), [L Zhang](#), [X Zou](#), [S Xia](#)... - Chemical Engineering ..., 2020 - Elsevier

... **greywater treatment** performance. The application of O₂-MBfR for **greywater treatment** has ... In this study, we evaluated the **treatment** of synthetic **greywater** by a bench-scale O₂-MBfR. ...

☆ Save [🔗](#) Cite Cited by 28 Related articles All 2 versions Web of Science: 21 Import into EndNote [🔗](#)

Find It @ CUNI

Google Scholar

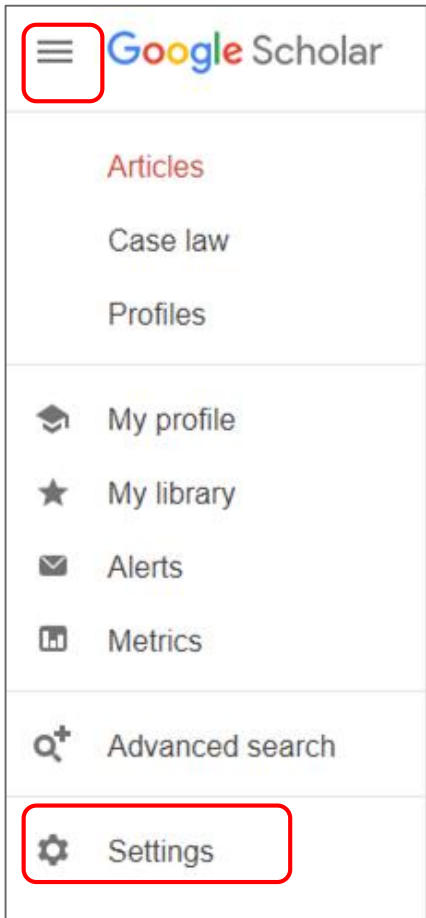


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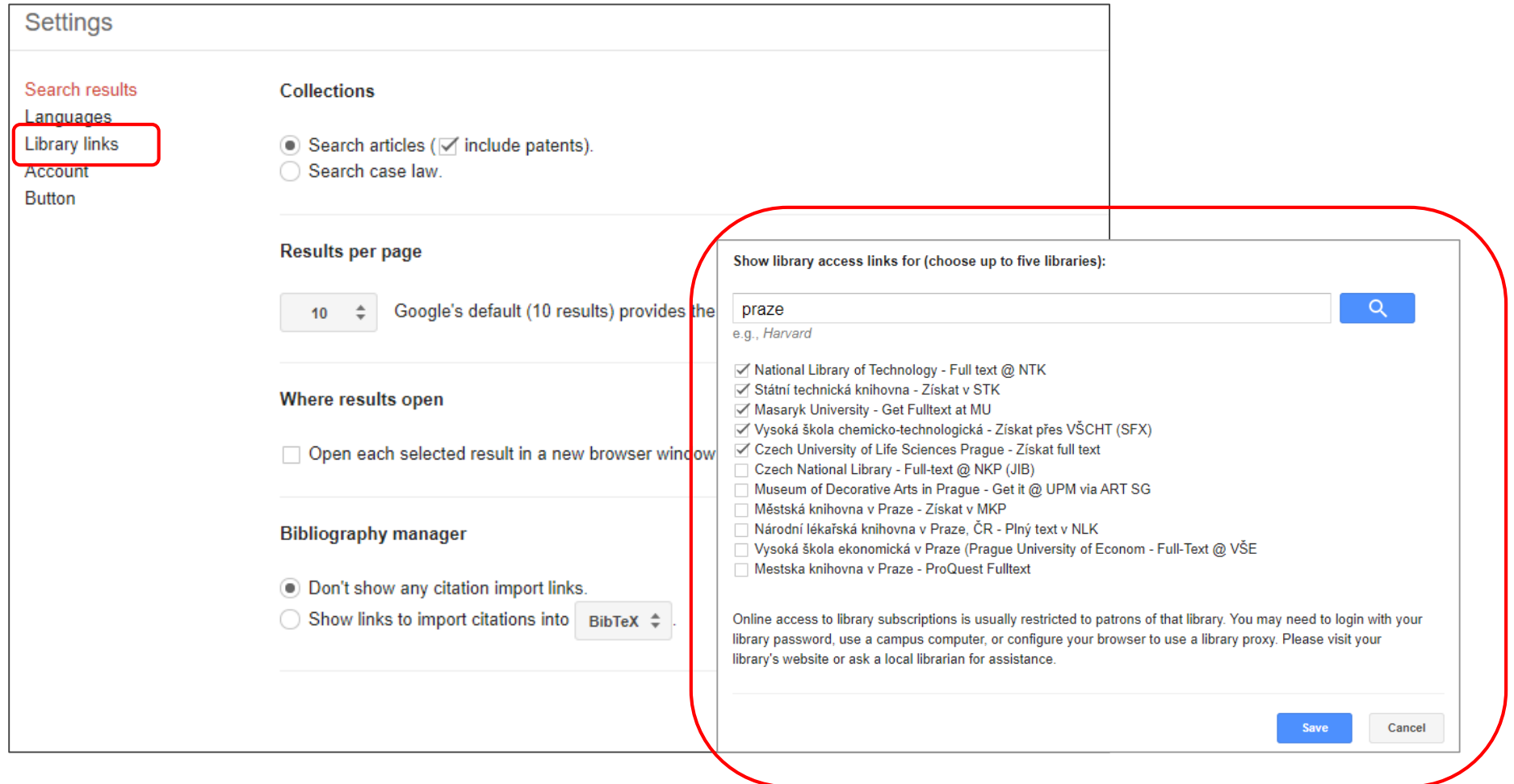
- [CTU](#) is currently not fully integrated with Google Scholar

Library Links Setting



Google Scholar

- Articles
- Case law
- Profiles
- My profile
- My library
- Alerts
- Metrics
- Advanced search
- Settings



Settings

Search results

- Languages
- Library links**
- Account
- Button

Collections

- Search articles (include patents).
- Search case law.

Results per page

10 Google's default (10 results) provides the

Where results open

- Open each selected result in a new browser window

Bibliography manager

- Don't show any citation import links.
- Show links to import citations into **BibTeX**

Show library access links for (choose up to five libraries):

e.g., Harvard

- National Library of Technology - Full text @ NTK
- Státní technická knihovna - Získat v STK
- Masaryk University - Get Fulltext at MU
- Vysoká škola chemicko-technologická - Získat přes VŠCHT (SFX)
- Czech University of Life Sciences Prague - Získat full text
- Czech National Library - Full-text @ NKP (JIB)
- Museum of Decorative Arts in Prague - Get it @ UPM via ART SG
- Městská knihovna v Praze - Získat v MKP
- Národní lékařská knihovna v Praze, ČR - Plný text v NLK
- Vysoká škola ekonomická v Praze (Prague University of Econom - Full-Text @ VŠE
- Mestska knihovna v Praze - ProQuest Fulltext

Online access to library subscriptions is usually restricted to patrons of that library. You may need to login with your library password, use a campus computer, or configure your browser to use a library proxy. Please visit your library's website or ask a local librarian for assistance.

Google Scholar Button



- Browser extension ([Chrome](#), [Firefox](#), [Opera](#))

A vertical sidebar menu for Google Scholar. At the top is the Google Scholar logo with a red box around the hamburger menu icon. Below are several menu items: 'Articles', 'Case law', 'Profiles', 'My profile', 'My library', 'Alerts', 'Metrics', 'Advanced search', and 'Settings'. The 'Settings' item at the bottom is highlighted with a red rounded rectangle.

Google Scholar

Articles

Case law

Profiles

My profile

My library

Alerts

Metrics

Advanced search

Settings

A settings dialog box titled 'Settings' with a blue graduation cap icon. On the left is a sidebar menu with 'Button' highlighted by a red rounded rectangle. The main area is titled 'Scholar Button for your browser'. It shows a browser address bar with 'https://www.example.edu/paper.pdf' and a blue graduation cap icon. Below the address bar is a green button with a magnifying glass icon, '[PDF]', and 'Cite'. Underneath is a 'Bibliography' section with a single entry: '1. Einstein, A., B. Podolsky, and N. Rosen, 1935, "Can quantum-mechanical description of physical reality be considered complete?", Phys. Rev. 47, 777-780.' At the bottom of the dialog is a red rounded rectangle containing the text 'Install Scholar Button to look up papers as you browse.' and two buttons: 'Save' and 'Cancel'.

Settings

Search results

Languages

Library links

Account

Button

Scholar Button for your browser

https://www.example.edu/paper.pdf

Bibliography

[PDF] "Cite"

1. Einstein, A., B. Podolsky, and N. Rosen, 1935, "Can quantum-mechanical description of physical reality be considered complete?", Phys. Rev. 47, 777-780.

Install Scholar Button to look up papers as you browse.

Save Cancel

Google Scholar Button

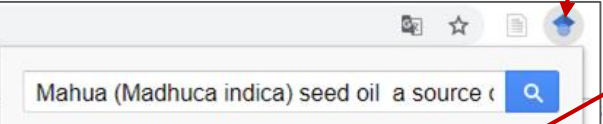


- Quick access to **full text** & citations download

References



[1] Sheehan J, Cambreco V, Duffield J, Garboski M, Shapouri H. An overview of biodiesel and petroleum diesel life cycles. A report by US Department of Agriculture and Energy; 1998. p. 1–35.
[Google Scholar](#)

[2] S. Puhan, N. Vedaraman, B.V. Rambrahaman, G. Nagarajan
Mahua (*Madhuca indica*) seed oil: a source of renewable energy in India
J Sci Ind Res, 64 (2005), pp. 890-896
[View Record in Scopus](#) [Google Scholar](#)

[3] 

[4] **Mahua (*Madhuca indica*) seed oil: A source of renewable energy in India**
S Puhan, N Vedaraman, BV Rambrahaman... - 2005
Mahua oil methyl, ethyl and butyl esters were prepared and studied in a four stroke, direct injection diesel engine for their performance and emissions. The engine test results showed high thermal efficiency in case of methyl ester compared to all other esters and diesel fuel. Different emissions such as carbon monoxide (CO), oxides of nitrogen (NO_x), hydrocarbons (HC) is low for alkyl esters compared to diesel. Among alkyl esters except NO_x all tail pipe emissions are lower in case of methyl ester compared to other esters. The ethyl ester shows ...

[5] Počet citací tohoto článku: 163 [Související články](#)
Všechny verze (počet: 5)
[\[PDF\] niscar.res.in](#)

 Chcete-li vyhledat jiný článek, vyberte jeho název na stránce. 

Mahua (*Madhuca indica*) seed oil: A source of renewable energy in India

Sukumar Puhan¹, N Vedaraman^{1*}, B V Rambrahaman¹ and G Nagarajan²
¹Chemical Engineering Division, Central Leather Research Institute, Chennai
²Department of Mechanical Engineering, Anna University, Chennai

Mahua oil methyl, ethyl and butyl esters were prepared and studied in a four stroke, direct injection diesel engine for their performance and emissions. The engine test results showed high thermal efficiency in case of methyl ester compared to all other esters and diesel fuel. Different emissions such as carbon monoxide (CO), oxides of nitrogen (NO_x), hydrocarbons (HC) is low for alkyl esters compared to diesel. Among alkyl esters except NO_x all tail pipe emissions are lower in case of methyl ester compared to other esters. The ethyl ester shows lower NO_x emission compared to other esters. Based on this study, mahua oil methyl ester performs well compared to other esters on the basis of performance and emissions.

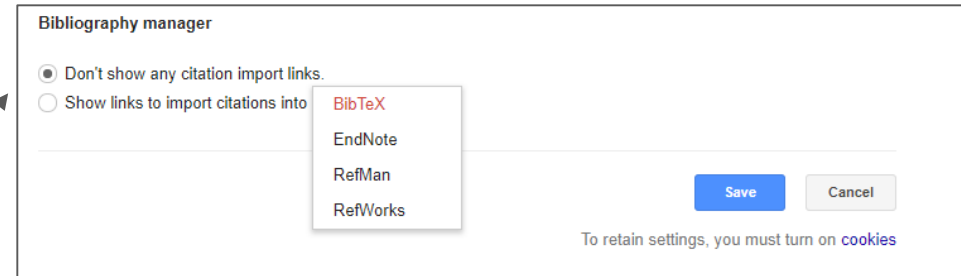
Keywords: Biodiesel, Diesel engine, Emissions, Mahua oil, Renewable energy
IPC Code: F02B13/10

Introduction
Worldwide energy consumption has increased 17 fold in the last century and, as a consequence, the carbon dioxide (CO₂), sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions from the combustion of fossil fuels have damaged the atmosphere to a significant extent. CO₂ emissions have risen over the last two decades, reaching an atmospheric content of 360 ppm, estimating the world CO₂ emissions at about 26 billion metric ton per year.

diesel fuels substitute; soybean oil in the USA, rapeseed and sunflower oils in Europe, palm oil in south East Asia and coconut oil in Philippines are being considered as substitutes for diesel fuels. Since edible oil demand is higher than its domestic production (Table 1), there is no possibility of diverting this oil for production of biodiesel in India. Being a tropical country, India is rich in forest resources having a wide range of trees, which yield a significant quantity of oilseeds. The production of

Google Scholar Tips & Tricks

- Library links
- Citation management tools
- Google Scholar Button
- Google Scholar Alerts
- Google Scholar Account
 - GS author profile
 - My library



Bibliography manager

Don't show any citation import links.

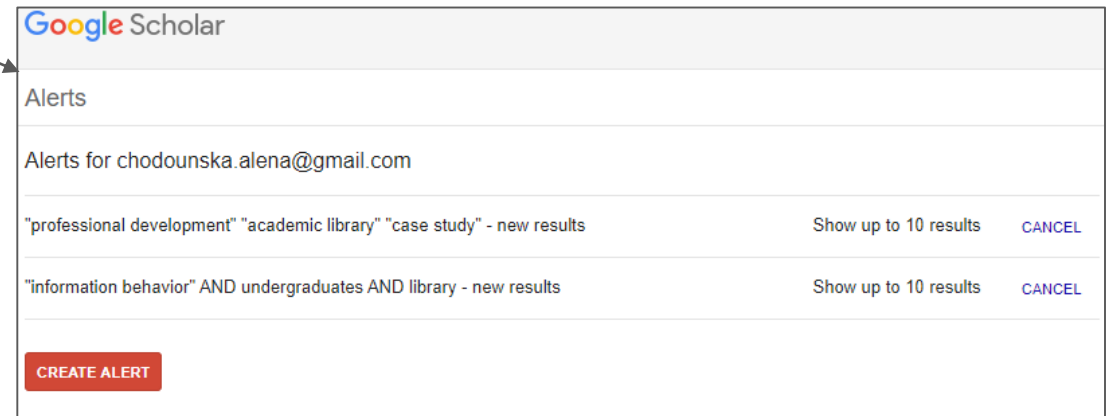
Show links to import citations into

- BibTeX
- EndNote
- RefMan
- RefWorks

Save Cancel

To retain settings, you must turn on [cookies](#)

This screenshot shows the 'Bibliography manager' settings dialog. It has two radio buttons: 'Don't show any citation import links.' (which is selected) and 'Show links to import citations into'. A dropdown menu is open next to the second option, showing four choices: BibTeX, EndNote, RefMan, and RefWorks. There are 'Save' and 'Cancel' buttons at the bottom right. A note at the bottom says 'To retain settings, you must turn on cookies'.



Google Scholar

Alerts

Alerts for chodounska.alena@gmail.com

| | | |
|--|-----------------------|--------|
| "professional development" "academic library" "case study" - new results | Show up to 10 results | CANCEL |
| "information behavior" AND undergraduates AND library - new results | Show up to 10 results | CANCEL |

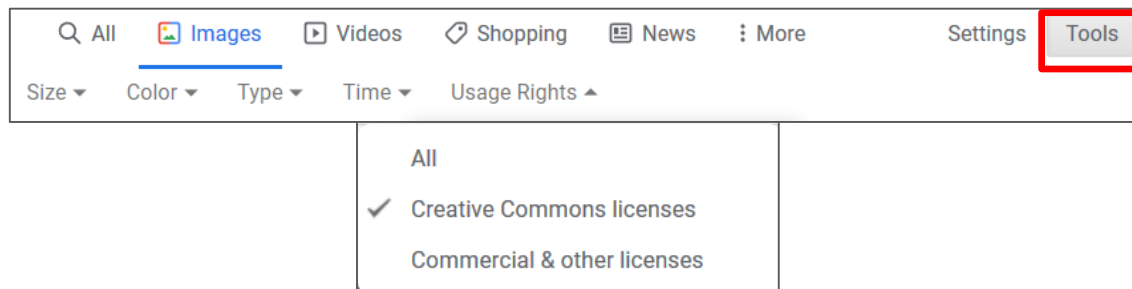
CREATE ALERT

This screenshot shows the 'Alerts' page in Google Scholar. It displays a list of alerts for the user 'chodounska.alena@gmail.com'. There are two alerts listed, each with a search query and a 'Show up to 10 results' link, and a 'CANCEL' button. At the bottom, there is a red 'CREATE ALERT' button.

Google Tips & Tricks

- Find the **name of the person** you are citing (especially when you are writing in Czech)
- Find pictures under **open licence**

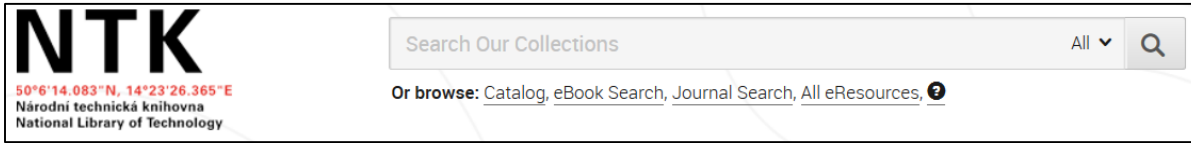
site:cvut.cz dissertation (all pages with keyword “dissertation” on domain “cvut.cz”)



→ [More Tips & Tricks on Google](#)

3. LIBRARY RESOURCES & FULL-TEXT ACCESS

Library Discovery Tools



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National Library of Technology

Search Our Collections All ▾ 🔍

Or browse: [Catalog](#), [eBook Search](#), [Journal Search](#), [All eResources](#), ⓘ

<https://www.techlib.cz/en/>

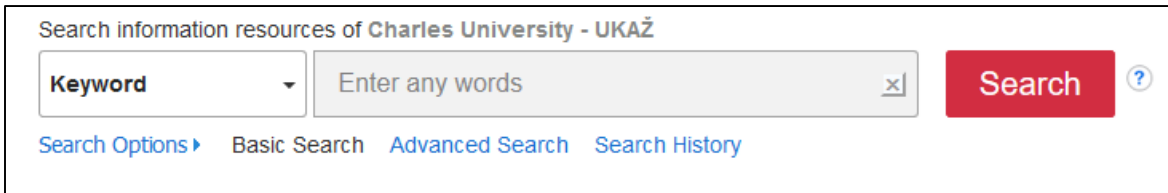


chemTK
Joint UCT, IOCB, and NTK
Library of Chemistry

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Or browse: [All eResources](#), [Journal search](#), [eBook search](#), [Catalog](#)

<https://www.chemtk.cz/en/>

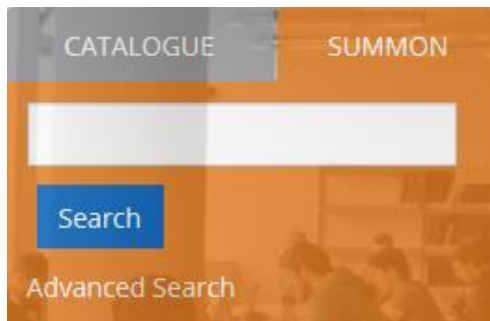


Search information resources of **Charles University - UKAŽ**

Keyword ▾ Enter any words x | Search ⓘ

[Search Options](#) ▶ [Basic Search](#) [Advanced Search](#) [Search History](#)

<https://ukaz.cuni.cz>



CATALOGUE SUMMON

Search

Advanced Search

<http://knihovna.cvut.cz/en/#summon>

- **One box** for searching across **all journals** and **books** (both electronic and print) provided by the library (items from databases like IEEE, ScienceDirect, EBSCO, ProQuest, and more)
- Advanced searching options
- Advanced filtering
- Library print collection included

Log in for off-campus access to full text

Discovery = search all databases from one field

24/7 Online Access to Scientific Resources
NTK provides access to a wide array of electronic content. Read more...
1 / 4 Temporary Access to Online Collections →

List of all databases (eResources) and eJournals & eBooks

NTK Hours: 8:00 - 2:00 All hours

- FAQ
- Team Study Rooms
- Print, Scan, Copy
- Wi-Fi
- What's On

Current seating occupancy:
259 out of 900

Quick access to main databases including Web of Science and Scopus

News

Digitization of EOD historical books

5. 10. – From October 1-31, you can order digital copies of historical books from nine EOD (eBooks on Demand) member libraries for 10 euros. More information can be found [here](#).

Winter Semester webinars

23. 9. – We've prepared a series of free Winter Semester webinars for [doctoral students](#) and [other early career researchers](#). Registration is open.

Changes starting September 1

7. 9. – Starting September 1, you can use the [Team Study Rooms](#) and the [Quiet Study Room](#) again. Library seating capacity has been increased to 900, and 46 persons can now be in

Selected eResources

- Cambridge Journals
- EBSCOhost
- Emerald Premier
- Encyclopedia Britannica
- IEEE Xplore
- IOPscience
- Nature Complete
- Oxford English Dictionary
- Oxford Journals
- ProQuest Central
- ProQuest Ebook Central
- ScienceDirect
- Scopus
- SpringerLink
- Taylor & Francis Online
- Web of Science
- Wiley Online Library

Contact Us

- Contact Form
- (+420) 232 002 535
(Mon: 12-8 p.m., Tue-Fri: 9 a.m.-5 p.m.)
- info@techlib.cz



Quick Links

- Education & Research Support
- Subject Guides
- Tutorials
- Become a Patron
- How to... (tech guides)
- Places to Study
- Suggest a Purchase
- Interlibrary Loan Services
- Conference Services & Rentals

www.techlib.cz/en/

Searching @ NTK

- NTK discovery tool
- Browse/find eBooks and eJournals
- Specific databases and electronic collections
- Access to full text
- Document delivery / interlibrary loan

[Electronic resources accessible from home](#)

Direct Access to Databases and Collections Provided by NTK

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Národní technická knihovna
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eLIB

chemTK

Czech

My account

Search Our Collections

All



Or browse: [Catalog](#), [eBook Search](#), [Journal Search](#), [All eResources](#)

[What We Have](#) - [Services & Support](#) - [Culture & Events](#) - [Who We Are](#) - [Projects & Innovation](#)

Search NTK pages...

[Homepage](#) / [What We Have](#) / [eResources](#)

Electronic Resources

Most of these eResources can be accessed outside the library. To search a specific database, select *via NTK*. To search all eResources at once, use the *Search Our Collections* box above.

Use filters to find resources relevant to a particular subject, in a particular format, or by language.

| Title | Access | Description |
|--|-----------------------------|-----------------------------|
| Academic Search Ultimate | via NTK | Description |
| AccessScience New | via NTK | Description |
| ACM Digital Library | via NTK | Description |
| ACS New | Open access | Description |
| American Institute of Physics - Complete | via NTK | Description |
| Analytical Abstracts | via NTK | Description |
| Anopress IT | Workstations in the library | Description |
| Apress | via NTK | Description |
| APS e-Journals | via NTK | Description |

Search and Filters

Type to filter

- RESOURCE TYPE
- CONTENT TYPE
- SUBJECTS
- ACCESS
- CONTENT LANGUAGE

CZECH
Member of eLIB

Contacts

eResources Acquisition

✉ eiz@techlib.cz
☎ (+420) 232 002 572

eResources Administration

✉ eservices@techlib.cz

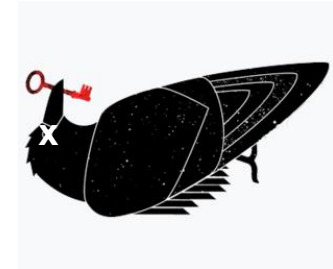
See also

- [Subject Guides](#)
- [eBooks A-Z](#)
- [eJournals A-Z](#)
- [Remote Access](#)
- [Access & Privileges](#)
- [Interlibrary Loan and Document Delivery](#)
- [Suggest a purchase](#)
- [Reference and Research Help](#)
- [Library Rules](#)
- [Catalog](#)
- [Scientific resources for COVID-19](#)

<https://www.techlib.cz/en/2883-eresources>

Getting Full Text (when Sci-Hub is down) ;-)

1. Always make sure you are logged onto the library website for **off-campus access**
2. Activate Library links on Google Scholar
3. Use tools on library web page



| eJournals | eArticles | eBooks |
|--|---|---|
| <p>Journal Search</p> <ul style="list-style-type: none">● Search for journal title or ISSN | <p>Discovery tool</p> <ul style="list-style-type: none">● “Phrase search” of article title● Supplement with name of one author for better accuracy | <p>Discovery tool</p> <ul style="list-style-type: none">● “Phrase search” of book title● Supplement with name of one author for better accuracy <p>eBook Search</p> <ul style="list-style-type: none">● Search for book title, ISBN, or author |

Getting Full Text: Other Options

International ILL Order Form for individual NTK patrons

You wish to get * A loan
 A copy

Name *

Address in the Czech Republic - Street

Address - City *

Zip Code *

Email *

Phone

Your status * Scholar / Scientist / Researcher
 Doctoral Student
 Student
 Other

Purpose of this order * Research
 Teaching
 Studies
 Other

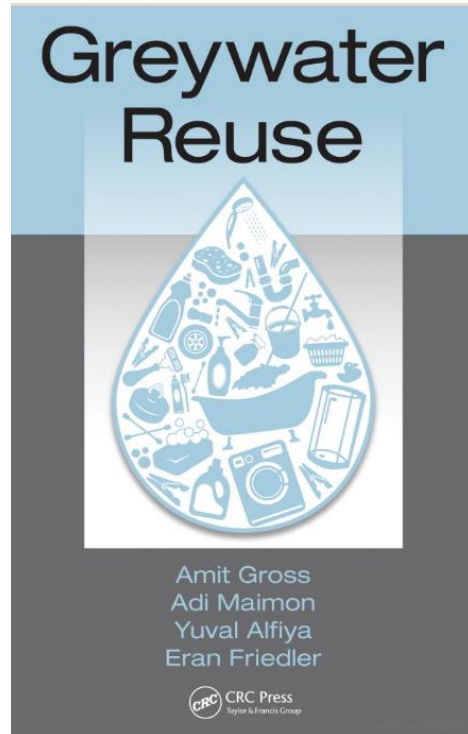
For materials that are not available online:

- Use [ILL form](#) (Interlibrary Loan)
- Ask for assistance: info@techlib.cz

4. TYPES OF SOURCES

Handbooks, Textbooks, & Encyclopedias

- To get familiar with **terminology** and **context** for a new project



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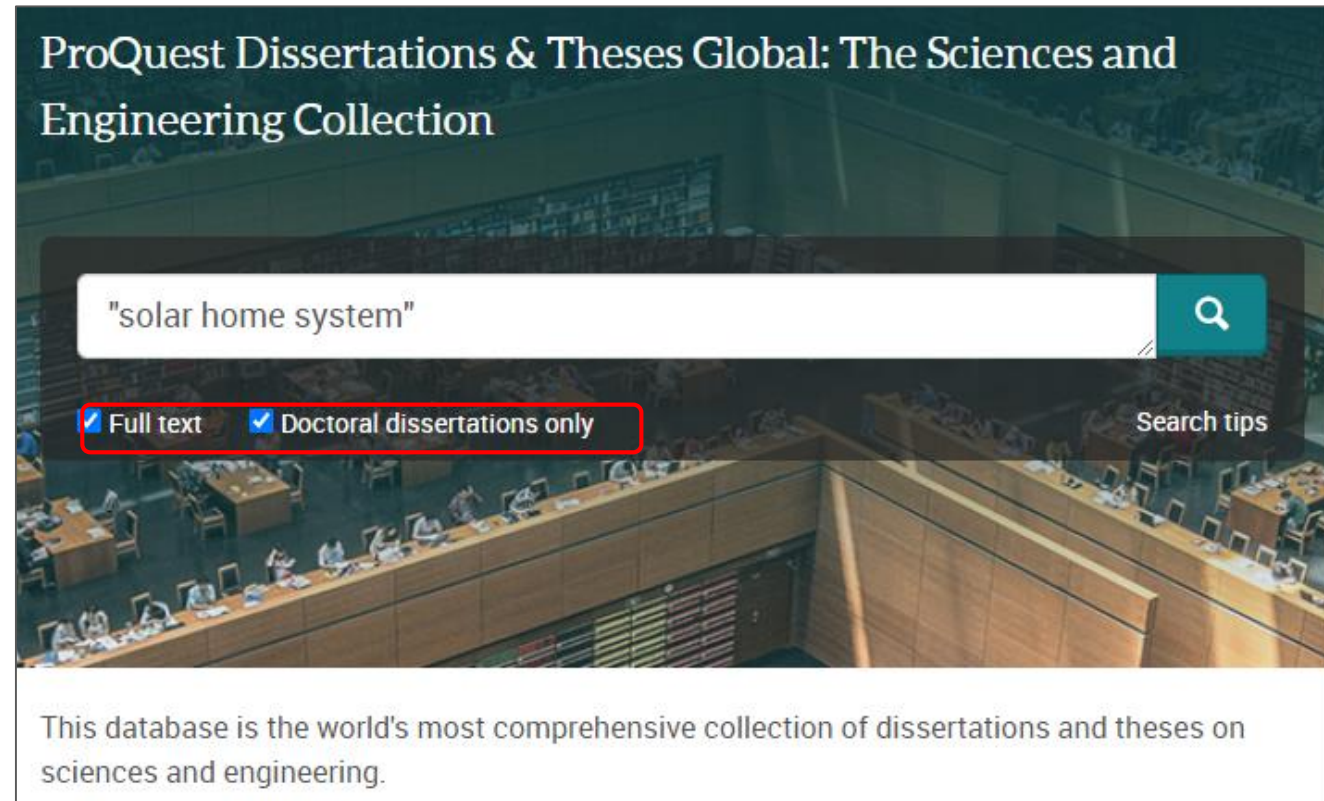
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GROSS, Amit et al. *Greywater reuse*. London; New York; Boca Raton: CRC Press, Taylor & Francis Group, 2015. ISBN 9781482255041;1482255049;

→ *greywater AND (handbook OR text book OR encyclopedias OR dictionary)*

Dissertations

- Get inspired by others' approaches to similar dissertation topics, formatting, and structure
- List of sources
- Discuss the choice of sample theses with mentor
- Avoid plagiarism



- *Czech institutional repositories* ([CTU](#), [UCT](#), [CU](#), [Grey literature](#))
- *International repositories*, [ProQuest Theses](#) (via NTK)

Review Articles

- Type of scholarly articles that provide summary and analysis of previous research on a specific topic/problem/question
- Efficient way to gain an overview of existing research and current state-of-the-art
- A comprehensive lists of relevant sources
- Review/Systematic Review, Meta-Research, Meta-Analysis

- (greywater OR "grey water") AND (review OR meta-analysis OR meta-research)
- Use a filter (available e.g., in [Scopus](#), [Web of Science](#), [Google Scholar](#), [Semantic Scholar](#))

CIVIL ENGINEERING AND ENVIRONMENTAL SYSTEMS, 2016
VOL. 33, NO. 1, 35–54
<http://dx.doi.org/10.1080/10286608.2015.1124868>



Taylor & Francis
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Grey water in buildings: a mini-review of guidelines, technologies and case studies

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ABSTRACT
The aim of the work is to describe the state-of-the-art on the reuse of grey water at building level taking into account (i) the grey water characteristics and amounts produced, (ii) the recycling guidelines, (iii) the treatment systems and reuse technologies, also considering the removal of micro-pollutants as xenobiotic organic compounds, and (iv) an overview of case studies for developed countries. The mini-review highlights how the existing technologies allow the safe reuse of grey water. Attention must be given to the removal of micro-pollutants especially when the discharge takes place in surface water. With reference to 12 case studies of buildings which adopt non-conventional technologies with the aim to optimise energy

ARTICLE HISTORY
Received 3 April 2015
Accepted 7 October 2015

KEYWORDS
Buildings; grey water; reuse; treatment technologies

DE GISI, Sabino et al. Grey water in buildings: a mini-review of guidelines, technologies and case studies. *Civil engineering and environmental systems*. 2016, vol. 33, no. 1, pp. 35–54 [cit. 2022-10-10]. Available: <https://doi.org/10.1080/10286608.2015.1124868>

Seminal Articles

- **Core articles** for specific fields, usually providing some groundbreaking information
 - Can usually be identified by the high number of citations
 - Via **citation databases** (reliable journals and proceedings)
- ("waste water" OR "grey water") sorted via number of citations in Web of Science or Scopus

Scopus (@ NTK)

Analyze search results Show all abstracts Sort on: Cited by (highest)

All Export Download View citation overview View cited by Add to List Print Email Save

| | Document title | Authors | Year | Source | Cited by |
|----------------------------|--|---------------------|------|---|----------|
| <input type="checkbox"/> 1 | Pseudo-second order model for sorption processes | Ho, Y.S., McKay, G. | 1999 | Process Biochemistry 34(5), pp. 451-465 | 10449 |

View abstract SFX View at Publisher Related documents

Web of Science (@ NTK)

Refine results 0/117,893 Add To Marked List Export Citations: highest first 1 of 2,000

Search within results for...

Quick Filters

- Highly Cited Papers 1,569
- Hot Papers 45
- Review Articles 7,859
- Early Access 933
- Open Access 22,250
- Associated Data 336

1 Pseudo-second order model for sorption processes 10,998 Citations

[Ho, Y.S. and McKay, G.](#)
Jul 1999 | [PROCESS BIOCHEMISTRY](#) 34 (5) , pp.451-465 85 References

A literature review of the use of sorbents and biosorbents to treat polluted aqueous effluents containing dyes/organics or metal ions has been conducted. Over 70 systems have been reported since 1984 and over 43 of these reported the mechanism as being a pseudo-first order kinetic mechanism. Three sorption kinetic models are presented in this pa... [Show more](#)

SFX [Full Text at Publisher](#) [Related records](#)

Chaudhuri, L. (n.d.). *Seminal Works*. EdD Executive Leadership

<https://resources.library.lemoyne.edu/guides/EdD/Systematic-Review/Seminal-Works>

→ Learn more about Citation Databases on our [website](#)

Seminal Articles (2)

Other search engines for academic resources that enable sorting results by number of citations:

- [Semantic Scholar](https://www.semanticscholar.org/) (a free search engine developed by the [Allen Institute for AI](https://allenai.org/))
- [Dimensions](https://app.dimensions.ai/discover/publication) (a commercial scholarly search platform, the free version includes searching in publications and datasets only)

Consider:

- Number of citations vs. time
- Difference: citation count in different tools (different set of content for analysis)

Semantic Scholar (<https://www.semanticscholar.org/>)

About 65,300 results for "waste water" OR "grey water" Top 100 relevant results, sorted by citation count

Fields of Study Date Range Has PDF Publication Type Author Journals & Conferences **Sort by Citation Co...**

Life cycle assessment of municipal waste water systems
A. Tillman, M. Svingby, Henrik Lundström · Environmental Science · 1 May 1998
Life Cycle Assessment was applied to municipal planning in a study of waste water systems in Bergsjön, a Göteborg suburb, and Hamburgsund, a coastal village. Existing waste water treatment consists... Expand
192 PDF View on Springer Save Alert Cite

Anaerobic treatment as a core technology for energy, nutrients and water recovery from source-separated domestic waste(water).
G. Zeeman, K. Kujawa, +9 authors G. Lettinga · Environmental Science, Biology · Water science and technology : a journal of the... · 1 April 2008

Dimensions (<https://app.dimensions.ai/discover/publication>)

"waste water" OR "grey water" x
Free text in full data Save / Exp

| PUBLICATIONS | DATASETS | GRANTS | PATENTS | CLINICAL TRIALS | POLICY DOCUMENTS |
|--------------|----------|--------|---------|-----------------|------------------|
| 453,634 | 2,088 | 4,347 | 904,189 | 13 | 13,694 |

Show abstract **Sort by: Citations**

Title, Author(s), Bibliographic reference - [About the metrics](#)

Standard methods for the examination of water and waste water.
F W Gilcreas
1966, American Journal of Public Health and the Nations Health - Article
Citations 11k Open Access Add to Library

[Google Scholar](https://scholar.google.com/) – number of citation, but does not enable sorting

Google Scholar "grey water" OR "waste water" SIGN IN

Articles About 18,600 results (0.06 sec) My profile My library

Any time Since 2022 Since 2021 Since 2018 Custom range...

[HTML] Review of the technological approaches for grey water treatment and reuses
F Li, K Wichmann, R Otterpohl - Science of the total environment, 2009 - Elsevier
... bathroom grey water, the laundry grey water and the mixed grey water are also deficient in nitrogen. In some cases, the laundry grey water and the mixed grey water ... Kitchen grey water ...
☆ Save Cite **Cited by 720** Related articles All 12 versions Web of Science: 347

[HTML] sciencedirect.com Full text @ NTK

How Do You Stay Aware of Recent Research Trends?

- A. Automatic alerts (email, RSS feeds) from a database or search engine (e.g., Google Scholar)
- B. Via social media (ResearchGate, Twitter, and so on)
- C. Checking a particular journal or website on a regular basis
- D. Receiving a newsletter from an institution or website
- E. Other (chat)

The Most Up-to-date, State-of-the-art Search

- Follow key scholars and institutions in your research field
- Preprint servers ([arXiv](https://arxiv.org), [bioRxiv](https://bioRxiv.org), others): articles published before peer review
- Conference papers, conference proceeding books
- Informal exploration of early-stage ideas: blogs, social networks, lectures

The screenshot shows the arXiv.org website. At the top left is the Cornell University logo. The main header is red with the text 'arXiv.org' and a search bar. Below the header, there is a navigation menu with categories like Physics, Mathematics, and Computer Science. A 'COVID-19 Quick Links' box highlights preprint servers. A large list of physics sub-fields is visible, including Astrophysics, Condensed Matter, High Energy Physics, and Nuclear Physics. The URL <https://arxiv.org/> is shown at the bottom.

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arXiv.org

Search... All fields Search

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Subject search and browse:

Computer Science Search Form Interface CATCHUP

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R Computer Science /s blog. (View the former "what's new" pages

h Quantitative Finance any automated download.

Statistics

PI Electrical Engineering and Systems Science

Economics

COVID-19 Quick Links

See COVID-19 SARS-CoV-2 preprints from

- arXiv
- medRxiv and bioRxiv

Important: e-prints posted on arXiv are not peer-reviewed by arXiv; they should not be relied upon without context to guide clinical practice or health-related behavior and should not be reported in news media as established information without consulting multiple experts in the field.

Physics

Astrophysics ([astro-ph new, recent, search](#))
includes: Astrophysics of Galaxies; Cosmology and Nongalactic Astrophysics; Earth and Planetary Astrophysics; High Energy Astrophysical Phenomena; Instrumentation and Methods for Astrophysics; Solar and Stellar Astrophysics

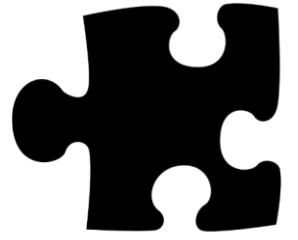
- **Condensed Matter** ([cond-mat new, recent, search](#))
includes: Disordered Systems and Neural Networks; Materials Science; Mesoscale and Nanoscale Physics; Other Condensed Matter; Quantum Gases; Soft Condensed Matter; Statistical Mechanics; Strongly Correlated Electrons; Superconductivity
- **General Relativity and Quantum Cosmology** ([gr-qc new, recent, search](#))
- **High Energy Physics - Experiment** ([hep-ex new, recent, search](#))
- **High Energy Physics - Lattice** ([hep-lat new, recent, search](#))
- **High Energy Physics - Phenomenology** ([hep-ph new, recent, search](#))
- **High Energy Physics - Theory** ([hep-th new, recent, search](#))
- **Mathematical Physics** ([math-ph new, recent, search](#))
- **Nonlinear Sciences** ([nlin new, recent, search](#))
includes: Adaptation and Self-Organizing Systems; Cellular Automata and Lattice Gases; Chaotic Dynamics; Exactly Solvable and Integrable Systems; Pattern Formation and Solitons
- **Nuclear Experiment** ([nucl-ex new, recent, search](#))
- **Nuclear Theory** ([nucl-th new, recent, search](#))
- **Physics** ([physics new, recent, search](#))
includes: Accelerator Physics; Applied Physics; Atmospheric and Oceanic Physics; Atomic and Molecular Clusters; Atomic Physics; Biological Physics; Chemical Physics; Classical Physics; Computational Physics; Data Analysis, Statistics and Probability; Fluid Dynamics; General Physics; Geophysics; History and Philosophy of Physics; Instrumentation and Detectors; Medical Physics; Optics; Physics and Society; Physics Education; Plasma Physics; Popular Physics; Space Physics
- **Quantum Physics** ([quant-ph new, recent, search](#))

Mathematics

<https://arxiv.org/>

5. READING & ORGANIZING SOURCES

Reading: Smart, Careful, Mindful



- Essential part of keeping up-to-date with current research (new discoveries, leading authors, context of one's own research)
- Prerequisites for writing (writing habits in the field, argumentation, citing)

TIPS

- Be smart and picky; focus on abstract, conclusion, and specific issues before deciding to read the whole paper carefully
- Make notes from the very beginning; it will save your time later
- Managing sources: create your own system to organize materials and thoughts, be systematic

Managing Sources – Tips & Tricks

- Notes (electronic vs. written): important information, relationship to your work (methodology, contradictory or confirmatory conclusions, and so on)
- Folders, tags, or ranking system to differentiate between documents
- Citation management tools

The image shows a screenshot of a research paper titled "An evaluation and explanation of (in)efficiency in higher education institutions in Europe and the U.S. with the application of two-stage semi-parametric DEA" by Joanna Wolszczak-Derlacz. The paper is from Gdańsk University of Technology. The screenshot includes several yellow sticky notes with handwritten text in Polish. One note says "Nadezda Firsova Options - DEA - metodika". Another note says "Bariéry, 3 modely". There are also timestamps and a date "25/11/2020 18:47:49" visible on the notes. The paper's abstract and introduction are visible in the background.

Example of electronic notes

The image shows a screenshot of a research paper titled "When stereotypes meet robots: The double-edged sword of robot gender and personality in human-robot interaction" by Benedict Tay^a, Younbo Jung^b, Taezoon Park^{a,c,*}. The paper is from the Division of Systems and Engineering Management, School of Mechanical & Aerospace Engineering, Nanyang Technological University. The screenshot includes handwritten notes in Czech. One note says "DOBRY ZDROJ POUŽIT V PRAKTICKE ČASTI!". Another note says "LESNÍ STEREOTYPNÍ ZOBRAZOVÁNÍ ROBOTŮ V LIDSKÝCH PROFESÍCH + LEANŮ RESPONDENTŮ". There are also red exclamation marks and other markings. The paper's abstract and introduction are visible in the background.

Example of written notes

Citation Management Tools

- Download and manage citations
- Create personal library
- Insert tags and notes
- Collaboration
- Generation of reference list
- Integrate with word processing software tools for easy insertion of citations into documents

[Zotero](#)

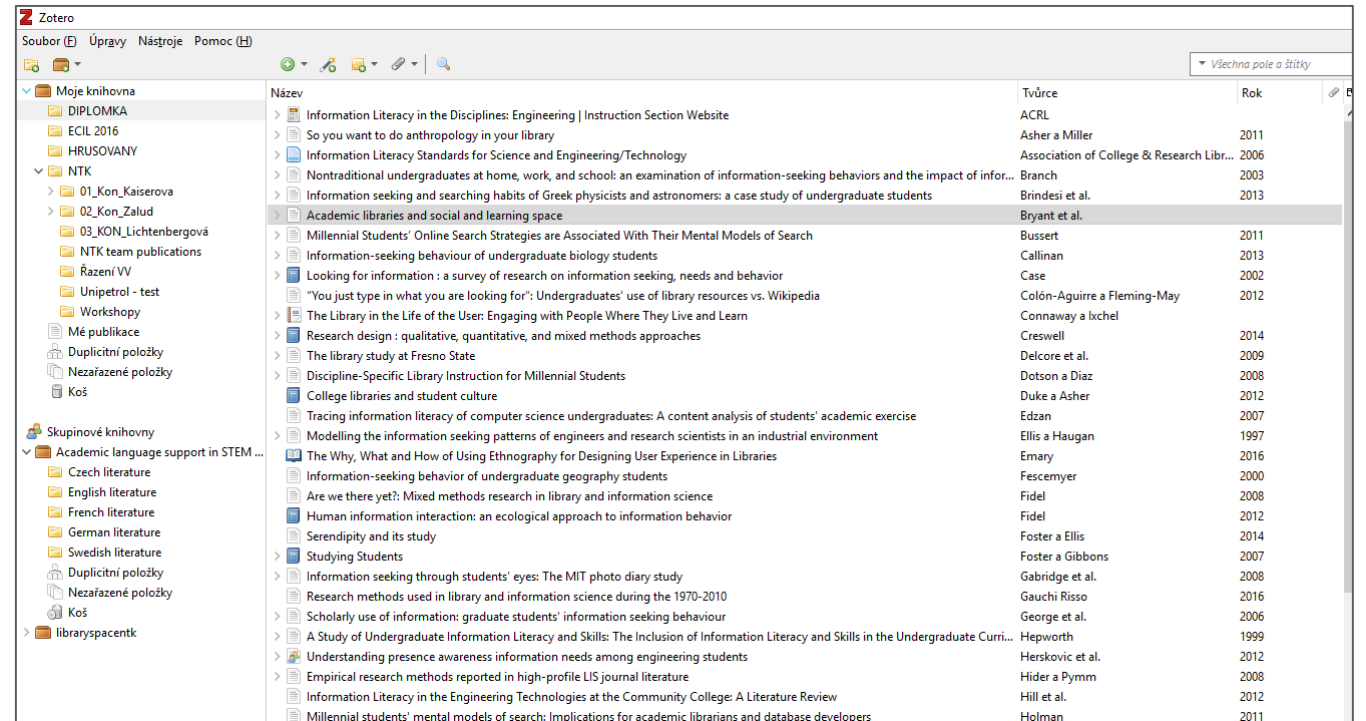
[CitacePRO](#)

[Mendeley](#)

[Citavi](#)

[JabRef](#) (integrated with LaTeX)

[EndNote](#) (subscription for UCT students)



Use them, but don't trust them absolutely!

6. PUBLISHING AND PRESENTING RESEARCH OUTPUTS

Have You Ever Published in a Scientific Journal or Conference Proceedings?

- A. Yes, as a co-author
- B. Yes, as the corresponding (lead) author
- C. Not at all

Searching High-quality Journals and Conferences

- Ask your mentor and/or peers
- Use citation and analytical databases to identify reliable journals and conferences: [Web of Science](#), [Scopus](#), [Inspec Analytics](#)
- Try recommender services such as [Elsevier JournalFinder](#), [WoS Manuscript Matcher](#)
- Review the quality & reputation (journal metrics, editorial board, conference organizers, mentor recommendations), [peer-review process](#) and author services provided; read tips about [avoiding predatory and questionable conferences](#)
- Consider relevance of the conference to your field as well as its intended audience
- [Open Access](#), [Open Data](#)
- Article processing charge (APC) and other costs and benefits
- Learn whether you can submit the same content to multiple journals or conferences at the same time (or not)

Searching High-quality Journals and Conferences

Eaton, S.E. (2018). Avoiding predatory journals and questionable conferences: A resource guide. *University of Calgary*. <https://files.eric.ed.gov/fulltext/ED579189.pdf>

Palmer, J. C. (2016). Navigating your first academic conference. *Psychological Science Agenda*. <https://www.apa.org/science/about/psa/2016/10/academic-conference>

Northcentral University Library (2021). *Research Process: Scholarly Publication*. <https://ncu.libguides.com/researchprocess/scholarlypublication>

Berkeley Library. (n.d.) *Scholarly Publishing*. <https://www.lib.berkeley.edu/scholarly-communication/publishing>

UNC University Libraries. (2021). Measure Your Research Impact: Where to Publish. <https://guides.lib.unc.edu/measure-impact/publish>

Summary

- Activate **Library links on Google Scholar**
- Always make sure you are logged into the library web for **off-campus access to full-text articles**
- Contact your librarian for materials that are hard-to-find
- Make notes and create your own system to organize materials from the very beginning of a project
- Use citation managers, but don't trust them absolutely!
- Critically consider journals and conferences and be aware of the publishing and conference submission process.

Get Assistance

1) Schedule a [consultation](#)

- Please don't be shy; [our team](#) includes doctoral students who know, the issues you face
- [LaTeX support](#), [Bibliometric services](#)

2) Attend a [webinar](#)

3) Explore by yourself

- [STEMskiller](#): comprehensive skills set map for early career researchers
- [Tutorials](#): NTK instructional materials and recordings, further resources
- [Subject guides](#)



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Thank you

Questions?