

Introduction to Web of Science & Scopus

MESSAGES

Public Chat

NOTES

Shared Notes

USERS (2)

Peter (You)

Alena Chodounská

Public Chat

Welcome to Navigating Scientific Resources & Staying Organized: Making it easier to write a Ph.D. dissertation, article, or proposal WS 2020/21!

This server is running NTK Conference System.

Set status

- Away
- Raise
- Undecided
- Confused
- Sad
- Happy
- Applaud
- Thumbs up
- Thumbs down

Start a private chat

Navigating Scientific Resources & Staying Organized: Making it easier to write a Ph.D. dissertation, ...

Welcome to the NTK Conference System

CHAT
Send public and private messages.

WEBCAMS
Hold visual meetings.

AUDIO
Communicate using high quality audio.

EMOJIS
Express yourself.

BREAKOUT ROOMS
Group users into breakout rooms for team collaboration.

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Poll your users anytime.

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Share your screen.

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Draw together.

Send message to Public Chat

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

Make presentation full screen

NTK

50°6'14.083"N, 14°23'26.365"E

Národní technická knihovna
National Library of Technology

Introduction to Web of Science & Scopus

Alena Chodounská, Vladimír Blažek
November 2021

Which institution 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

Which citation database do you use the most often, if any?

- A. Web of Science
- B. Scopus
- C. Google Scholar
- D. Other (+ comment in chat)
- E. None, that's why I'm here

Outline

1. [Introduction to citation databases](#)
2. [Searching by topic](#)
3. [Searching for journals and journal metrics](#)
4. [Searching for authors and author metrics](#)
5. [Summary](#)
6. [Getting assistance](#)

1. Introduction to citation databases

Evaluating research impact

*“Hopefully, your PhD research will make an **impact** by advancing knowledge in your field or by contributing to real-world applications.”¹*

The results of research are usually presented in form of scientific articles, proceedings, and books.

One of the (limited) ways of measuring the impact of a researcher in their field is the **number of citations** for papers published in **quality, peer-reviewed scientific** journals.

1) PhD On Track. (n.d.). Citation impact. <https://www.phdontrack.net/share-and-publish/citation-impact/>

Scientific communication & quality control

- Submitted papers are evaluated via a **rigorous [peer review process](#)** in quality scientific journals.
- Citation databases include resources (usually journals) in them according to selection criteria ([Scopus criteria](#), [Web of Science criteria](#)).
- Citation information is then analyzed within citation databases and **citation metrics** for journals, articles, and authors are calculated.
- **Web of Science** and **Scopus** citation databases are currently used in the Czech academic performance evaluation system.

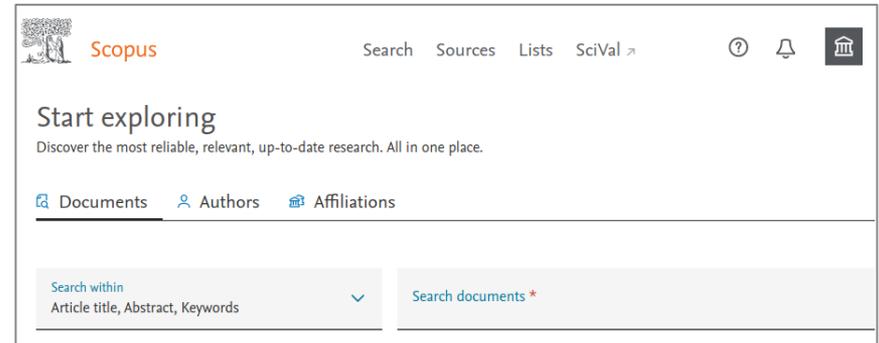
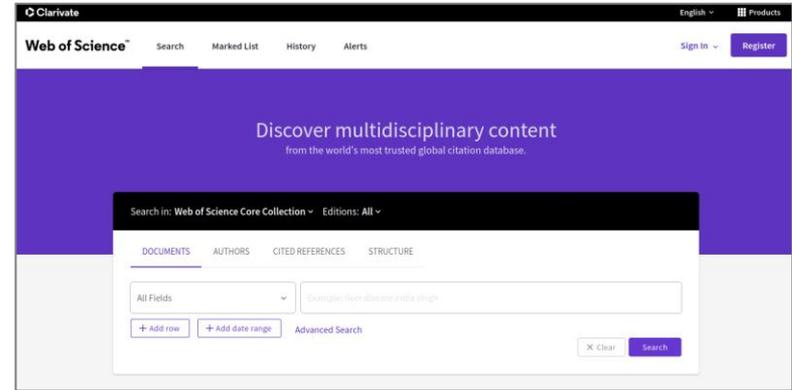
Citation metrics are important if you choose a career in academia, and they are also used to evaluate scientific institutions around the world.

How can citation databases help you?

- In searching for reliable, peer-reviewed resources (better chances of avoiding low-quality/[predatory journals](#))
- In checking journal metrics to make better decisions about where to publish (to build your academic reputation and get RIV points)
- In looking up author metrics (*h*-index counts) for proposals or one's own CV
- In identifying new trends and seminal articles in your field

Web of Science (WoS) and Scopus

- **Peer-reviewed scholarly literature:**
 - Journals, books, and conference proceedings
- **Content policy and selection criteria:**
 - **Evaluation of included literature** by standards, subject/content relevance, and impact
- **Citation information:**
 - Others who cite a work (times cited)
 - Views (usage count) and analysis
- Other citation metrics
- **No full texts, but links to full texts and abstracts**



How do you use citation databases? (if you use them)

- A. Searching for peer-reviewed resources
- B. Checking journal metrics (impact factor, citation scores)
- C. Getting author metrics (*h*-index counts)
- D. Other (+ comment in chat)
- E. I don't, that's why I'm here

Comparison

Features	WoS	Scopus
Developer/Producer	Clarivate Analytics	Elsevier
Coverage	1900 to present	1970 to present
Author identifier	Assigned automatically and edited manually via Publons	Auto-generated Scopus Author ID
Alerts service	Yes	Yes
Export citations	Yes	Yes
Citation analysis	Yes	Yes
Main journal metrics	Journal Impact Factor	CiteScore
Author metrics	<i>h</i> -index	<i>h</i> -index

Limitations/risks

- Metrics: learning about the different kinds of metrics may be confusing at first
- Delay in indexing (up to 6 months after publication)
- No full texts, but links to full texts (abstracts are available)
- Beware of potential biases
 - Uncritical acceptance of the assumptions, reasoning, conclusions of indexed papers
 - An overly negative attitude (“the paper is not good”) for papers with low numbers of citations or in journals not in WOS or Scopus
- Don't rely only on citation databases. Not enough for a comprehensive literature search; quality research can be found in other places as well

Access to WoS & Scopus

- Subscribed to via NTK and university libraries
- You have direct access within your university network (in your office or classrooms)
- For **off-campus access**, check with your library:
 - [NTK](#), [CTU](#), [UCT & IOCB](#), [Charles Univ.](#), [CZU](#)
- The list of journals (including citation metrics) is open to all
 - [Scopus sources](#)
 - [Web of Science Master Journal List](#) (for access to impact factor information, registration is required)

Access via:

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- JOPscience
- Nature Complete
- Oxford English Dictionary
- Oxford Journals
- ProQuest Central
- ProQuest Ebook Central
- ScienceDirect
- Scopus
- SpringerLink
- Taylor & Francis Online
- Web of Science
- Wiley Online Library

[National Library of Technology](#)

CZECH TECHNICAL UNIVERSITY IN PRAGUE
CENTRAL LIBRARY

15 May 2019 is a Rector's day. Due to the shutdown of Oracle and the entire CTU IS, the services of the central CTU library

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Information resources catalogue

Showing all - Close all

Citations index

Citation databases are databases that track quoted responses to published review texts. In the Czech Republic, two of the most significant citation databases, SCOPUS and Web of Science, are used for ISI VeiVal review. Specifically, for reviewing articles published in journals and conference proceedings (Web of Science is part of Citation Reports and SCOPUS).

WEB OF SCIENCE | JCR | SCOPUS | INCITES

Web of Science

Direct access Remote access (Shibboleth)

The Web of Science (WoS) is a bibliographic and citation database used for VeiVal evaluation in the Czech Republic. Together with JCR evaluates the **Impact Factor (IF)** of journals.

WoS Components:

- Science Citation Index Expanded (SCI-Expanded)
- Social Science Citation Index (SSCI)
- Arts & Humanities Citation Index (AHCI)
- Conference Proceedings Citation Index (CPCI)
 - Science
 - Arts & Humanities

Journals in WoS¹²
Conferences in WoSConferences in WoS¹²

[CTU Central Library](#)

CHARLES UNIVERSITY
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Scopus Springer Taylor & Francis **Web of Science** Wiley

[Charles University Resources](#)

2. Searching by topic in citation databases

Finding scholarly literature

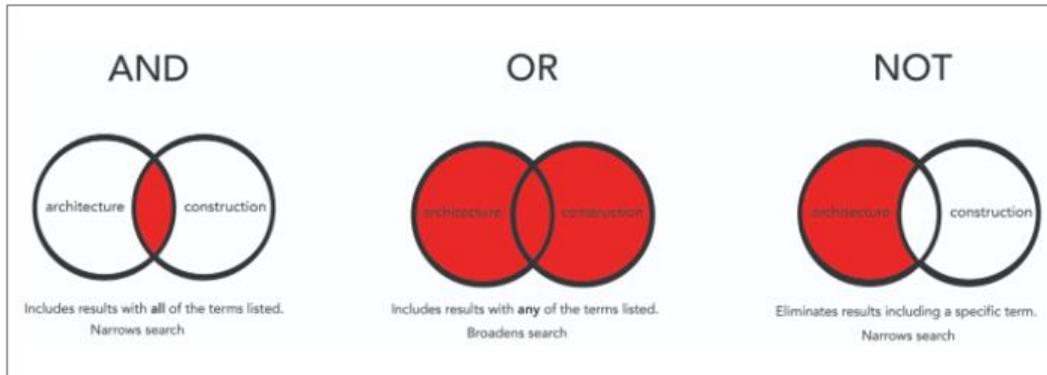
CASE STUDY #1: I need to find high quality sources for my dissertation about technologies for **carbon capture and utilization**

The screenshot displays a search interface for the 'Web of Science Core Collection'. At the top, a black bar contains the text 'Search in: Web of Science Core Collection' and 'Editions: All'. Below this, there are four tabs: 'DOCUMENTS', 'AUTHORS', 'CITED REFERENCES', and 'STRUCTURE'. The 'DOCUMENTS' tab is selected. A search input field contains the text '"carbon capture storage"'. Below the input field, a dropdown menu is open, showing a list of search fields: 'All Fields', 'Topic', 'Title', 'Author', 'Publication Titles', and 'Year Published'. The 'Topic' field is highlighted with a red box. To the right of the dropdown, there is a description for the 'Topic' search field: 'Searches title, abstract, author keywords, and Keywords Plus. Example: robot* control* "input shaping"'. There are also 'Clear' and 'Search' buttons.

Database searching tips

Topic ▾ "carbon capture storage" ×

⊖ Or ▾ Topic ▾ "carbon capture utilisation" ×



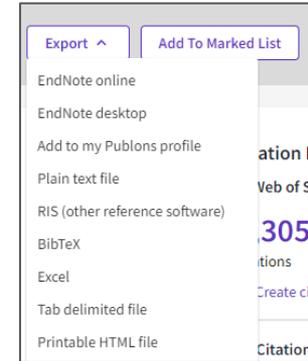
*industr**
industry
industrial
industrialism
industrialization

*sul*ur*
sulfur
sulphur

Integration with reference management tools

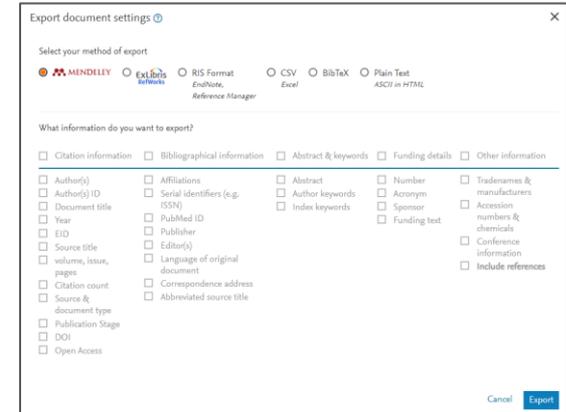
Web of Science

- Supports direct download of citations (and PDFs) to [EndNote](#)
- You can also save citations via the browser extension for your favorite reference management tools (e.g., [Zotero](#) or [Mendeley](#)) or you can export selected citations to an RIS file (that can be opened by other reference management tools)



SCOPUS

- Supports direct download of citations (and PDFs) to [Mendeley](#) and [RefWork](#)
- You can also save citations via the browser extension for your favorite reference management tools (e.g., [Zotero](#) or [EndNote](#)) or you can export citations to an RIS file (that can be opened by other reference management tools)



Personal accounts

Creating personal accounts enables you to:

- **Save** your search history and lists of documents
- **Create alerts** for each search

3. Searching for journals

What are journal metrics?

- Measurements of quality/impact of a journal
- They assist in quantifying the importance of a journal

Journal metrics

Web of Science's Journal Citation Reports:

- [Journal Impact Factor](#)

Scopus sources:

- [CiteScore](#)

Impact factor (WoS)

“The impact factor is a measure of the frequency with which the 'average article' in a journal has been cited in a particular year or period.”

*“The impact factor of a journal is calculated by dividing the number of current year citations to the source items published in that journal during the **previous two years.**”¹*

$$\text{IF}_{2017} = \frac{\text{Citations}_{2016} + \text{Citations}_{2015}}{\text{Publications}_{2016} + \text{Publications}_{2015}} = \frac{32389 + 41701}{880 + 902} = 41.577$$

Image source: https://en.wikipedia.org/wiki/Impact_factor

1) Garfield E. (1994, June 20), The Impact Factor. Originally published in the *Current Contents*, Available also at: <https://clarivate.com/webofsciencegroup/essays/impact-factor/>

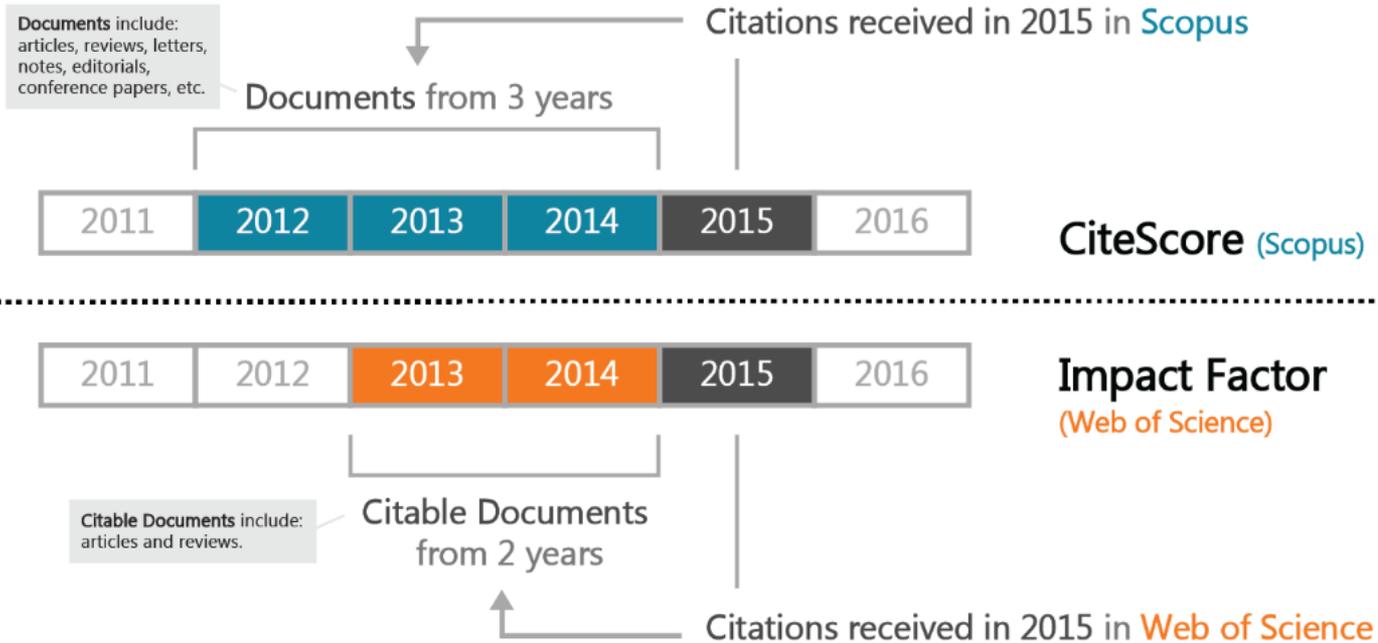
CiteScore (Scopus)

CiteScore 2020 methodology

CiteScore 2020 counts the citations received in 2017-2020 to articles, reviews, conference papers, book chapters and data papers published in 2017-2020, and divides this by the number of publications published in 2017-2020.



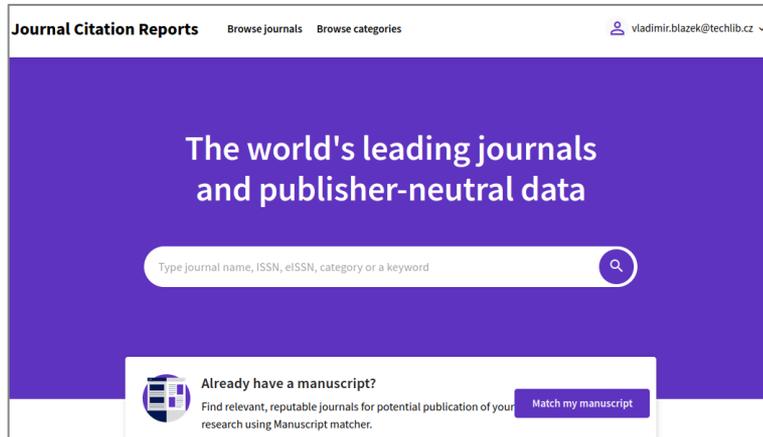
CiteScore (Scopus) vs. WoS impact factor



Checking impact factor/CiteScore

CASE STUDY #2: I need to check the quality and reliability of the *Journal of Modern Power Systems and Clean Energy*

- **Journal Citation Report** for WoS impact factor



The screenshot shows the homepage of Journal Citation Reports. The header includes "Journal Citation Reports", "Browse journals", "Browse categories", and a user profile for "vladimir.blazek@techlib.cz". The main content area has a purple background with the text "The world's leading journals and publisher-neutral data". Below this is a search bar with the placeholder text "Type journal name, ISSN, eISSN, category or a keyword". At the bottom, there is a section titled "Already have a manuscript?" with a subtext "Find relevant, reputable journals for potential publication of your research using Manuscript matcher." and a "Match my manuscript" button.

- **Source** for Scopus CiteScore



The screenshot shows the Scopus Sources page. The header includes the Scopus logo, "Scopus", and navigation links for "Search", "Sources", "Lists", and "SciVal". The main content area is titled "Sources" and features a "Subject area" dropdown menu with a blue arrow icon and the text "Enter subject area".

CASE STUDY #3: I need to check the quality and reliability of the *International Journal of Energy Engineering*

International journal of energy	
JOURNAL NAME	ISSN/eISSN
INTERNATIONAL JOURNAL OF ENERGY RESEARCH	0363-907X / 1099-114X
International Journal of Energy Sector Management	1750-6220 / 1750-6239
International Journal of Energy Optimization and Engineering	2160-9500 / 2160-9543
International Journal of Energy and Environmental Engineering	2008-9163 / 2251-6832

See all 4 results >



INTERNATIONAL JOURNAL OF ENERGY RESEARCH

ISSN
0363-907X

2020 JOURNAL IMPACT FACTOR

5.164

[View calculation](#)

EISSN
1099-114X

JCR ABBREVIATION
INT J ENERG RES

ISO ABBREVIATION
Int. J. Energy Res.

International Journal of Energy Sector Management

ISSN
1750-6220

Emerging journal

EISSN
1750-6239

JCR ABBREVIATION
INT J ENERGY SECT MA

ISO ABBREVIATION
Int. J. Energy Sect. Manag.

International Journal of Energy Optimization and Engineering

ISSN
2160-9500

Emerging journal

EISSN
2160-9543

JCR ABBREVIATION
INT J ENERGY OPTIM E

ISO ABBREVIATION
Int. J. Energy Optim. Eng.

International Journal of Energy and Environmental Engineering

ISSN
2008-9163

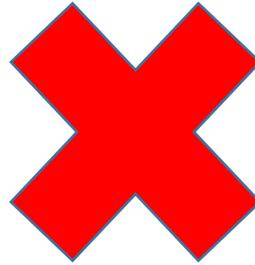
Emerging journal

EISSN
2251-6832

JCR ABBREVIATION
INT J ENERGY ENVIR E

ISO ABBREVIATION
Int. J. Energy Environ. Eng.

CASE STUDY #3: I need to check the quality and reliability of the *International Journal of Energy Engineering*



**INTERNATIONAL
JOURNAL OF ENERGY
RESEARCH**

ISSN
0363-907X

EISSN
1099-114X

JCR ABBREVIATION
INT J ENERG RES

ISO ABBREVIATION
Int. J. Energy Res.

**International Journal
of Energy Sector
Management**

ISSN
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JCR ABBREVIATION
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**International Journal
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JCR ABBREVIATION
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**International Journal
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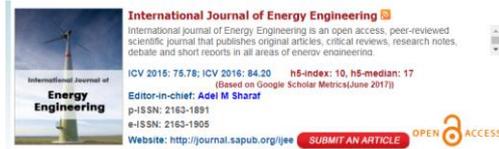
ISSN
2008-9163

EISSN
2251-6832

JCR ABBREVIATION
INT J ENERGY ENVIR E

ISO ABBREVIATION
Int. J. Energy Environ. Eng.

International Journal of Energy Engineering



Link:

<http://www.sapub.org/journal/aimsandscope.aspx?journalid=1005>

Publisher: Scientific & Academic Publishing (SAP)

ISSN: 2163-1905

WoS JCR: **NO**

Scopus Sources: **NO**

Beall's archive: **YES**

International Journal of Energy Research



Link:

<https://onlinelibrary.wiley.com/journal/1099114x>

Publisher: John Wiley & Sons Ltd.

ISSN: 1099-114X

WoS JCR: **YES** (2017-IF 3.009)

Scopus Sources: **YES** (2017-CS 2.72)

Beall's archive: **NO**

Tracking a specific journal

- Be careful: one word or one letter can make a great difference
- [Ulrichsweb](#): check journal details and ISSNs
- [Beall's archive](#) of potential predatory publishers and journals
 - Beware! The original list has not been updated since 2016
 - There are successors to Jeffrey Beall, but they prefer to remain anonymous

4. Searching for authors & *h*-index counts

Why use author identifiers?

- Names are sometimes confusing; there are different ways to write/transliterate them
- Names are not unique
- People can change their names

- Author identifiers give you the ability to reliably distinguish two authors with the same name or to track one author across multiple databases

Author identifiers

Features	ResearcherID (Publons)	Scopus Author Identifier	ORCID (Open Researcher & Contributor ID)
How to get author identifier?	Author identifier will be created automatically with your first publication in WoS. You can then claim the profile with Publons and manage it similarly to ORCID.	Author identifier will be generated automatically if you have at least one publication in Scopus. You can edit author profiles (Edit profile tool) or use Author Feedback Wizard or Support. Merging profiles is possible on the results page.	Create your profile at orcid.org . You can join all your author IDs in ORCID.
How to link your publication with your ID?	Manage via Publons: You can import your citations from Web of Science, ORCID, via DOI or add them manually.	Imported automatically from Scopus, add manually in Edit profile.	You can import from many platforms (WoS, Scopus, arXiv) or add manually.
Supporting platforms	Web of Science	Scopus	Open non-profit initiative

- Link all papers published under different variants of your name
- Distinguish papers written by other authors with the same name
- Create your author profiles

h-index

“The h-index is based on a list of publications ranked in descending order by the Times Cited. The value of h is equal to the number of papers (N) in the list that have N or more citations. (...)

A researcher (or a set of papers) has an h-index of N if he/she has published N papers that have N or more citations each. The h-index is based on Times Cited data from the database. It will not include citations from non-indexed resources.”¹

Paper	Number of citations	
Paper 1	101	} h = 7
Paper 2	86	
Paper 3	77	
Paper 4	56	
Paper 5	16	
Paper 6	12	
Paper 7	8	
Paper 8	4	
Paper 9	4	
Paper 10	1	

Image source: <https://toptipbio.com/h-index-how-to-calculate-yours/>

1) Clarivate Analytics (2019, February 5), *Web of Science: h-index information*. Available at: https://support.clarivate.com/ScientificandAcademicResearch/s/article/Web-of-Science-h-index-information?language=en_US

***h*-index: potential traps**

- The source or records for analysis:
 - Web of Science **vs.** Scopus **vs.** Google Scholar
- The number and accuracy of records in a dataset:
 - Basic search **vs.** ORCID search **vs.** author profile
- Exclude self-citations of selected author **vs.**
exclude self-citations of all co-authors

Tracking an author in WoS

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[Advanced Materials Group](#)

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<http://orcid.org/0000-0002-0863-6287>

<https://usermap.cvut.cz/profile/577dec31-a2d6-4eda-a02e-c9b1c370447b?lang=en>

CASE STUDY #4: I want to find papers by **Prof. Tomáš Polcar** (and check his *h*-index)

5. Summary

Summary of advantages

- **Contain high-quality, peer-reviewed articles**
- You can use the number of citations to identify seminal articles
- Searching for authors and evaluating them
- Searching for journals and their metrics
- Creating alerts to track new trends

Keep in mind

- **Access to full texts** can be problematic 
- To make your research more comprehensive, also **use other search tools** (e.g., Google Scholar, an academic library discovery system)
- **Delay** in indexing sometimes (up to 6 months after publication for some journals)

6. Getting assistance

STEMskiller

<https://www.techlib.cz/en/84109-stemskiller>

SKILL SET MAP FOR MENTORS OF EARLY CAREER RESEARCHERS

Definitions, annotations, and links to high-quality open educational resources in English useful in guiding students towards excellence. [\[Read more...\]](#)

Competencies are grouped into four areas, with subsections:

1. [Research and scholarship](#)
2. [Learning, teaching, and supervising](#)
3. [Career management](#)
4. [Engagement, involvement, collaboration, transdisciplinarity, and inquisitiveness](#)

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Bibliometric Services

Bibliometrics can assist you in evaluating published research results, assessing the impact of basic and applied research, or in making decisions about funding (scientometrics).

What we offer

Consultations

- Learn to effectively search citation databases.
- Quickly find your publications and h-index variants.
- Manage your published output with author identifiers (ORCID, ResearcherID, Scopus Author ID).
- Evaluate journal impact factor or other citation metrics.

The service is **free**.

Publication Overview with Citation Counts

We can prepare a customized citation report for you based on information you provide to us such as an author's name or particular research field. For these reports, we primarily use **citation databases and resources** such as Scopus, Web of Science, Journal Citation Reports, Google Scholar.

How to order our services

Arrange a consultation [in person](#), [by phone](#) (+420 232.002.535) or [email](#).

Editor: [Vladimir Blazek](#)

Your contact



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✉ [vladimir.blazek](mailto:vladimir.blazek@techlib.cz)
☎ 232 002 535

Subjects

Bibliometrics and Scientometrics, Free and Open Source Software, Unix, Internet Privacy, Data Protection

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Original Author: Jakub Szarzec

Last modified: 6.4. 2020 16:04

<https://www.techlib.cz/en/83534-bibliometric-services>

Scheduled Consultations

If you wish to meet and discuss your research topic in detail, please fill out the form and we will confirm our appointment within one business day.

We suggest to bring a tablet or laptop to your confirmed appointment.

I would like to discuss . . .

Question -

Preferred time and date -

First and last name -

Email -

Phone -

<https://www.techlib.cz/en/8340-1-scheduled-consultations>

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Thank you

Questions?