# Evaluation/Ranking of Journals, Researchers, and Institutions

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# Introductory Quiz

#### H-index

Task 1: Determine the h-index of John Smith, a young researcher, who has the following citation record:

- paper A, cited 7 times
- paper B, cited 3 times
- paper C, not cited yet
- paper D, cited 2 times
- paper E, cited 5 times

Task 2: Estimate (guess) the h-index of the most cited Czech researcher.

Task 3: Estimate (guess) the total number of citations of the most cited Czech researcher.

# Introductory Quiz

### Impact Factor

Task 4: Determine the most recent impact factor of the fictitious Journal of Good Research, using the tabulated citation data. Based on its impact factor, would you expect this journal to be good or poor?

| year | published | citatic | ons to th | nese pap | pers in |
|------|-----------|---------|-----------|----------|---------|
|      | papers    | 2017    | 2018      | 2019     | 2020    |
| 2017 | 20        | 5       | 30        | 44       | 35      |
| 2018 | 25        | -       | 4         | 26       | 28      |
| 2019 | 15        | -       | -         | 10       | 22      |
| 2020 | 20        | -       | -         | -        | 12      |

Task 5: Estimate the impact factor of the most cited international journal. *Can you guess the name of this journal or the research area that it covers?* 



Please think about the questions and submit your answers using the form at https://forms.office.com/r/r5b9yJDbz7.

# Introductory Quiz

### Correct Answers

- Task 1: The h-index of John Smith is equal to 3.
- Task 2: To be discussed later.
- Task 3: To be discussed later.
- Task 4: The most recent impact factor that can be extracted from these data is the so-called 2018 impact factor. Its value is 1.25. The standing of a journal with this impact factor depends on its field, but it is probably neither a top journal, nor a really poor one.
- Task 5: The impact factor of the most cited journal is higher than 200. It is an oncology journal. *Further details will be discussed later.*

# Outline

### Ranking of Journals

- Web of Science, impact factor
- Scopus, Scopus journal metrics
- Predatory journals and misleading metrics

## 2 Evaluation of Researchers

- Publications
- Citations, h-index
- 3 Evaluation of Czech Research Organizations
- 4 College and University Rankings

## Plan

## Ranking of Journals

- Web of Science, impact factor
- Scopus, Scopus journal metrics
- Predatory journals and misleading metrics
- 2 Evaluation of Researchers
  - Publications
  - Citations, h-index
- 3 Evaluation of Czech Research Organizations
- 4 College and University Rankings

Web of Science, impact factor

# Web of Science, impact factor

### Web of Science

Scientific citation indexing service provided by Clarivate Analytics (formerly by Thomson Reuters), consisting of several collections:

- **1** Web of Science Core Collection
- O Specialist Collection
  - BIOSIS, MEDLINE, Inspec, FSTA, ...
- 8 Regional Collection
  - Chinese, Russian, Korean, SciELO
- Oata Collection
- Patent Collection

 Ranking of Journals
 Evaluation of Researchers
 Evaluation of Czech Research Organizations
 College and University

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Web of Science, impact factor

# Web of Science, impact factor

### Web of Science Core Collection

- **Science Citation Index Expanded** (from 1900)
- Social Sciences Citation Index (from 1900)
- Arts & Humanities Citation Index (from 1975)
- Emerging Sources Citation Index (from 2015)
- Sook Citation Index (from 2005)
- **O Conference Proceedings Citation Index** (from 1990)

Covers over 21,000 journals, over 180,000 conference proceedings, and over 80,000 books.

Provides about 1.5 billion cited reference connections.

Web of Science, impact factor

#### Impact Factor

Measure of the impact of a certain journal, based on citations to papers published in that journal:

$$IF(J,Y) = rac{c(J,Y)}{p(J,Y)}$$

 $IF(J, Y) \dots$  impact factor of journal J in year Y  $p(J, Y) \dots$  number of papers published in J in years Y - 1 and Y - 2  $c(J, Y) \dots$  cites in year Y to papers published in J in Y - 1 and Y - 2Impact Factors can be found in Journal Citation Reports (JCR).

#### Other Measures

5-year impact factor, immediacy index, cited half-life, citing half-life, eigenfactor score, **article influence score**, ...

Web of Science, impact factor

### Examples of Impact Factors

Science:

806 papers published in 2016, 768 papers published in 2017, 64,633 cites to these papers in 2018

$$IF(2018, Science) = \frac{64633}{806 + 768} = 41.063$$

International Journal of Solids and Structures: 434 papers published in 2016, 360 papers published in 2017, 2213 cites to these papers in 2017

$$IF(2018, IJSS) = \frac{2213}{434 + 360} = 2.787$$

Web of Science, impact factor

| Rankin | g of Journals in Mechanics Based on 2018 Impa      | ct Factors |
|--------|--|------------|
| 1.     | Annual Review of Fluid Mechanics                   | 16.306     |
| 2.     | Advances in Applied Mechanics                      | 8.333      |
| 3.     | Energy Conversion and Management                   | 8.208      |
| 4.     | Applied Mechanics Reviews                          | 6.733      |
| 5.     | International Journal of Plasticity                | 6.490      |
| 30.    | <br>International Journal of Solids and Structures | 3.213      |
| 136.   | <br>Mechanics of Solids                            | 0.374      |

(2019 InCites Journal Citation Reports)

- Quartiles Q1 Q4
- Top 10% (first decile, D1)

Web of Science, impact factor

| Ranking | of All Journals Based on 2018 Impact Factors   |       |
|---------|--|-------|
| 1.      | CA: A Cancer Journal for Clinicians            | 292.3 |
| 2.      | New England Journal of Medicine                | 74.7  |
| 3.      | Nature Reviews Materials                       | 71.2  |
| 4.      | Nature Reviews Drug Discovery                  | 64.8  |
| 5.      | Lancet   | 60.4  |
|         |  |       |
| 14.     | Nature   | 42.8  |
| 15.     | Science  | 41.8  |
|         |  |       |
| 2916.   | International Journal of Solids and Structures | 3.2   |
|         |  |       |
| 12846.  | Pulp & Paper - Canada                          | 0.000 |

(2019 InCites Journal Citation Reports)

Web of Science, impact factor

| 2017 Impact Factors in Various | Categories (s | selected examples) |
|--------------------------------|---------------|--------------------|
|--------------------------------|---------------|--------------------|

| journal category                      | median IF | aggregate IF |
|---------------------------------------|-----------|--------------|
| Nanoscience & Nanotechnology          | 2.934     | 6.195        |
| Cell Biology                          | 3.325     | 5.825        |
| Chemistry (Multidisciplinary)         | 2.199     | 5.561        |
| Materials Science (Multidisciplinary) | 2.008     | 4.641        |
| Biochemistry & Molecular Biology      | 2.906     | 4.281        |
| Computer Science & Cybernetics        | 1.283     | 3.162        |
| Biomedical Engineering                | 1.990     | 3.158        |
| Electrical & Electronic Engineering   | 1.820     | 2.723        |
| Mechanics                             | 1.768     | 2.663        |
| Mechanical Engineering                | 1.708     | 2.479        |
| Civil Engineering                     | 1.448     | 2.301        |
| Applied Mathematics                   | 0.972     | 1.299        |
| Mathematics                           | 0.704     | 0.855        |
| History                               | 0.400     | 0.465        |

Ranking of Journals Evaluation of Researchers Evaluation of Czech Research Organizations College and Univ 

Web of Science, impact factor

### IF Boosted by Unethical Editorial Policies

### Journal of the Mechanics and Physics of Solids

| Key In | dicators                       |   |   |
|--------|--------------------------------|---|---|
| Year 🔻 | Total<br>Cites<br><u>Graph</u> | Journal<br>Impact<br>Factor<br><u>Graph</u> | Impact<br>Factor<br>Without<br>Journal<br>Self<br>Cites |
|        |                                |   | <u>Graph</u>  |
| 2014   | 13,081                         | 3.598                                       | 3.249   |
| 2013   | 12,046                         | 4.289                                       | 3.929   |
| 2012   | 10,460                         | 3.406                                       | 3.168   |
| 2011   | 9,562                          | 2.806                                       | 2.478   |
| 2010   | 9,828                          | 3.705                                       | 3.433   |
| 2009   | 9,466                          | 3.317                                       | 3.058   |
| 2008   | 9,094                          | 3.467                                       | 3.128   |
| 2007   | 7,519                          | 3.542                                       | 3.250   |
| 2006   | 6,941                          | 3.609                                       | 3.168   |
| 2005   | 5,952                          | 2.764                                       | 2.437   |
| 2004   | 6,095                          | 3.443                                       | 3.044   |
| 2003   | 5,373                          | 2.885                                       | 2.519   |
| 2002   | 4,671                          | 2.364                                       | 2.004   |
| 2001   | 4,783                          | 2.521                                       | 2.046   |
| 2000   | 4,393                          | 2.068                                       | 1.801   |
| 1999   | 3,906                          | 1.773                                       | 1.502   |
| 1998   | 3,620                          | 1.905                                       | 1.686   |

### International Journal of Plasticity

| Year 🔻 | Total<br>Cites<br><u>Graph</u> | Journal<br>Impact<br>Factor<br><u>Graph</u> | Impact<br>Factor<br>Without<br>Journal<br>Self<br>Cites |
|--------|--------------------------------|---|---|
| 2014   | 7,364                          | 5.567                                       | 3.674   |
| 2013   | 6,866                          | 5.971                                       | 3.673   |
| 2012   | 5,276                          | 4.356                                       | 2.863   |
| 2011   | 4,864                          | 4.603                                       | 2.703   |
| 2010   | 4,826                          | 5.082                                       | 3.137   |
| 2009   | 4,179                          | 4.791                                       | 2.768   |
| 2008   | 3,594                          | 3.875                                       | 2.465   |
| 2007   | 3,211                          | 4.516                                       | 2.725   |
| 2006   | 2,763                          | 4.113                                       | 2.091   |
| 2005   | 2,408                          | 4.029                                       | 1.965   |
| 2004   | 2,175                          | 3.819                                       | 1.445   |
| 2003   | 1,569                          | 2.768                                       | 1.297   |
| 2002   | 1,290                          | 2.464                                       | 1.488   |
| 2001   | 965                            | 1.212                                       | 0.898   |
| 2000   | 931                            | 1.040                                       | 0.712   |
| 1999   | 647                            | 0.741                                       | 0.444   |
| 1998   | 636                            | 1.091                                       | 0.818   |

2004: 11.6% of self-citations 2004: 62.2% of self-citations

Scopus, Scopus journal metrics

# Scopus, Scopus Journal Metrics

### Scopus

Bibliographic database owned by Elsevier, covering journals, proceedings and patents.

### Scopus Journal Metrics

• CiteScore:

similar to IF but taken over previous 3 years (instead of 2)

- SCImago Journal Rank (SJR): accounts for number of citations and prestige of the citing sources
- Source Normalized Impact per Paper (SNIP): uses weighting based on the total number of citations in a given field

Scopus, Scopus journal metrics

| Comparison of Journal Met | rics  |       |       |       |       |
|---------------------------|-------|-------|-------|-------|-------|
| journal                   | IF    | AIS   | CS    | SJR   | SNIP  |
| Chemical Reviews          | 52.76 | 16.48 | 100.5 | 20.85 | 12.83 |
| Int. J. Solids Structures | 3.21  | 0.87  | 5.8   | 1.30  | 1.58  |
| J. of Algebraic Geometry  | 1.59  | 2.77  | 2.1   | 2.49  | 2.08  |
| Acta Polytechnica         |       |       | 1.3   | 0.21  | 0.59  |

(2019 Journal Citation Reports, 2019 Scopus Journal Metrics) IF = Impact Factor, AIS = Article Influence Score, CS = CiteScore, SJR = SCImago Journal Rank, SNIP = Source Normalized Impact per Paper

The number of cites of a given paper is usually higher in Scopus than in Web of Science (WoS).

At CTU, Scopus used to be perceived as less prestigious than WoS, but this is no longer the case.

The national research evaluation system as well as the CTU promotion rules consider Scopus and WoS as equally relevant.

Ranking of Journals Evaluation of Researchers Evaluation of Czech Research Organizations College and Universes Concession Concession

Predatory journals and misleading metrics

# Predatory journals and misleading metrics

### Predatory journals

Beware of journals that promise an extremely speedy publication process and ask for a fee.

Open access is a meaningful concept, but should not be abused. True recognition of your work by the community is not for sale.

#### Misleading metrics

Often, predatory journals boast of high "impact factors", but these are not the "true" Impact Factors assigned by Clarivate Analytics. Certain "alternative impact factors" are announced by strange servers that are not respected by the international research community.

Predatory journals and misleading metrics

#### Example: Statement from an email

*IOSR Journals* got 10th Ranking by AQCJ (African Quality Center for Journals) – Top 20 Journals Ranking.

#### Example: Statement from another email

International Journal of New Technology and Research has Impact Factor 1.09 (SIF), 1.387 (PIF), 2.254 (SPARC Factor).

### Example: Statement from a web site

International Journal of Engineering and Applied Sciences has Impact Factor 1.227.

#### Reality

None of these journals is indexed in Web of Science nor in Scopus.

#### Predatory journals and misleading metrics

|  |  |  |                              | 0   |   |
|--|--|--|------------------------------|---|---|
| <b>IOSR Journals</b><br>International Organization<br>of Scientific Research   | WELC   | OME ABOUT  | IOSR                         | IOSR JOURNALS   | CONTACT US                                      |
| IOSR JOURNALS - FOR AU<br>SUBSCRIBE JOURNALS -   | THORS - QUAL   | ITY REPORT 👻   | SPECIA                       | L ISSUE 🗸   |   |
| Other Useful Journals  | Citation Repo  | rts  |                              |   |   |
| IOSR Journal of Computer<br>Engineering (IOSR-JCE)<br>IOSR Journal of Electrical and<br>Electronics Engineering<br>(IOSR-JEEE)<br>IOSR Journal of Mechanical and<br>Civil Engineering (IOSR/MCE) | IOSR Journals published<br>IOSR Journals paper cit<br>report.        | d paper cited highly o<br>ation is increasing da   | lue to open<br>ay by day. So | y paper to achieve high in<br>access publication era and<br>it is very difficult to calco<br>acause it depends on citat | d its worldwide indexir<br>ulate exact citation |
| IOSR Journal of Electronics and<br>Communication Engineering<br>(IOSR-JECE)  | 1. IOSR Journal of 0<br>2. IOSR Journal of I<br>3. IOSR Journal of I | Electrical and Electrical Additional Electrical Additional Electrical Electrical Additional Electric E | ronics Engi<br>il Engineer   | neering: 61.3 %<br>ing: 71.2 %  |   |
| IOSR Journal of VLSI and Signal<br>Processing (IOSR-JVSP)  | 4. IOSR Journal of I<br>5. IOSR Journal of V                         |  |                              | n Engineering: 65.3 %<br>.7 %   |   |
| IOSR Journal of Mobile Computing<br>& Application (IOSR-JMCA)  |  | Environmental Scie   | nce, toxico                  | ogy and Food Technolo   | gy : 51.1 %                                     |
| IOSR Journal of Environmental<br>Science, Toxicology and Food<br>Technology (IESTFT)   | 8. IOSR Journal of I<br>9. IOSR Journal of I                         |  |                              |   |   |

Predatory journals and misleading metrics

IOSR Journals try its best effort for selecting good quality paper to achieve high impact factor.

IOSR Journals published paper cited highly due to open access publication era and its worldwide indexing.

IOSR Journals paper citation is increasing day by day. So it is very difficult to calculate exact citation report. But approx citation report is as follows (it may be vary because it depends on citation of papers):

- 1. IOSR Journal of Computer Engineering : 76.5 %
- 2. IOSR Journal of Electrical and Electronics Engineering: 61.3 %
- 3. IOSR Journal of Mechanical and Civil Engineering: 71.2 %
- 4. IOSR Journal of Electronics and Communication Engineering: 65.3 %
- 5. IOSR Journal of VLSI and Signal Processing: 61.7 %
- 6. IOSR Journal of Environmental Science, toxicology and Food Technology : 51.1 %
- 7. IOSR Journal of Humanities and Social Science: 79.6 %
- 8. IOSR Journal of Pharmacy and Biological Science: 73.5 %
- 9. IOSR Journal of Business and Management: 75.8 %
- 10. IOSR Journal of Dental and Medical Science: 83.4%

Ranking of Journals Evaluation of Researchers Evaluation of Czech Research Organizations College and Univ Predatory journals and misleading metrics ISSN:2454-4116 International Journal of New Technology and Research Impact Factor 2.254 Besearch Publication (An ISO 9001:2008 Certified Online Journal) India | Germany | France | Japan Paper Title or Author Name Search ABOUT IJNTR CALL FOR PAPER FOR AUTHORS EDITORIAL BOARD SUBMIT ARTICLE CONTACT US HOME Ш .... About IJNTR News & Updates Call for Paper **Payment** Option Submit Article Call for Paper Impact Factor 4.09 (SIF) Impact Factor 1.387 (PIF) For Authors Payment Option

Predatory journals and misleading metrics



Last Date of Paper Submission October 09, 2019

Review Report (Faster Online Peer Review) Within 3-4 Days after Submission

Publication (online) Within 1-2 Days After Registration

Indexing and Certificate Delivery After 7 Days of Last Date of Publication

Review within 3–4 days after submission?? Can experts really do that on a regular basis?

Predatory journals and misleading metrics

### Bad Practices of Predatory Journals

- Falsely claiming to provide peer review and meaningful editorial oversight of submissions
- Lying about affiliations with prestigious scholarly/scientific organizations
- Claiming affiliation with a non-existent organization
- Naming reputable scholars to editorial boards without their permission (and refusing to remove them)
- Falsely claiming to have a high Journal Impact Factor
- Hiding information about article processing charges until after the author has completed submission
- Falsely claiming to be included in prestigious indexes

Predatory journals and misleading metrics

# Beall's List

### Scholarly Open Access

- Web server devoted to critical analysis of scholarly open access publishing.
- Started in 2008 by Jeffrey Beall, a librarian at the University of Colorado Denver.
- Used to provide a (very long) list of suspicious publishers and another list of suspicious standalone journals.
- In December 2016 closed due to pressure of certain publishers (e.g., OMICS Publishing Group threatened to sue Beall with a \$1 billion lawsuit for defaming the company)

Predatory journals and misleading metrics

# Beall's List, December 2016

|                                  | Sc  | holar<br>Critical anal   | Iy Open A  | CCESS<br>shing  |
|----------------------------------|---|--|--|---|
| Home                             | About the Author  | Disclaimer   | LIST OF PUBLISHERS   | LIST OF STANDALONE JOURNALS   |
| Other pa                         | ages  |  |  |   |
|                                  | ST OF PUBLISHI<br>eall's List:  | ERS  |  | Search  |
|                                  | tential, possible, or<br>en-access publishe   |  | datory scholarly   | RECENT POSTS  |
| rec<br>des<br>the<br>a fe<br>pre | ommend that scholars<br>criptions provided her<br>y want to submit articl<br>w cases, non-open acc  | read the availate,<br>e, and then dec<br>es, serve as edi-<br>ess publishers<br>been added to        | en-access publishers. We<br>ble reviews, assessments and<br>ide for themselves whether<br>tors or on editorial boards. If<br>whose practices match those<br>the list as well. The criteria<br>there. | Violating Canada<br>o Three Open-Access Publishers<br>from Turkey<br>o Hyderabad, India — City of Corruption<br>o Predatory Publishers Thriving |
| the<br>jou:<br>geo<br>cha<br>kep | mselves how importan<br>rnals in the context of<br>cultural locus. We em<br>nge in their business a | tly or not to rate<br>their own instit<br>phasize that jou<br>and editorial pro<br>t extent possible | nittees can also decide for<br>e articles published in these<br>utional standards and/or<br>urnal publishers and journals<br>actices over time. This list is<br>e but may not reflect sudden,        | CATECODIES  |

o 1088 Email Press

- o 2425 Publishers
- o The 5th Publisher

#### CATEGORIES o article processing charges o Australia o Mandates o Misleading metrics o Open-access policy o Open-access sanctions o Plaaiarism

Predatory journals and misleading metrics

# Beall's List, December 2016

- o InternationalJournals.co.in
- o Internet Scientific Publications
- o Interscience Journals
- o Interscience Open Access Journals
- o Inter-USE (International Union of Scence and Education)
- o Intuition Journals
- o Invention Journals
- o IORE International
- o IOS Publishing (Institute of Science Publishing)
- o IOSR Journals SEE International Organization of Scientific Research
- o iProbe Group
- o Ira Publications
- o IRED International Journals
- o IRO Journals
- o IROSSS (International Research Organization of Sciences and Social Sciences)
- o Isaac Scientific Publishing
- o iSER Publications
- o Ishitv Technologies
- o ISISnet
- o Islamic World Network for Environmental Science and Technology (IWNEST Publisher)
- ISPACS (International Scientific Publications and Consulting Services)

Ranking of Journals Evaluation of Researchers Evaluation of Czech Research Organizations College and University Contractions Cont

Predatory journals and misleading metrics

# Beall's List, December 2016

|          |      | Sc            | holar<br>Critical analy | y Open A           |                                      |
|----------|------|---------------|-------------------------|--------------------|--------------------------------------|
| Home     | Abo  | ut the Author | Disclaimer              | LIST OF PUBLISHERS | LIST OF STANDALONE JOURNALS          |
| Other pa | ages |               |                         |                    |                                      |
| Po       | aue  | Organizatio   | n Rubliche              | s Over 300         | You have coarched the Scholarty Open |

#### Bogus Organization Publishes Over 300 Open-Access Journals

July 12, 2016



Another bogus organization that wants your money.

The International Organization of Scientific Research and Development (IOSRD) launched recently with 3.94 x 10<sup>2</sup> journals. It's a bogus organization that only wants to make easy money from scholarly authors. Read the rest of this entry »

You have searched the Scholarly Open Access blog archives for 'IOSR'. If you are unable to find anything in these search results, you can try one of these links.

| IOSR   |  |
|--------|--|
| IUSK   |  |
| Search |  |

| RECENT POSTS  |
|---|
| o OMICS International Continues<br>Violating Canada                 |
| o Three Open-Access Publishers<br>from Turkey                       |
| o Hyderabad, India — City of Corruption                             |
| o Predatory Publishers Thriving<br>on LinkedIn                      |
| o Spammers Invite Researchers to Pay<br>to Advertise Their Research |

Predatory journals and misleading metrics

# Beall's List Today

#### BEALL'S LIST

#### OF POTENTIAL PREDATORY JOURNALS AND PUBLISHERS

|  | PUBLISHERS                                   | STANDALONE JOURNALS VANITY PRESS CONTACT  | OTHER  |
|--|--|---|--|
| $Q_{\rm s}$ $\beta$ earch for publish  | ners (name or URL)                           |   |  |
| Potential predatory scholarly open-access publishers   |  |   | Important message  |
| "About" section. Then simply have a publisher use the Sta  | y enter the publishe<br>Indalone Journals li | it is usually written at the bottom of the journal's webpage or in the<br>r's name or its URL in the search box above. If the journal does not<br>st.<br>are potentially predatory unless stated otherwise. | We have successfully moved from<br>Weebly to an independent server.<br>Contact form is now working as<br>always. |
| Original list  |  | GO TO UPDATE  | Useful pages   |
| This is an archived version of the Beall's list – a list of potential predatory publishers created by a librarian Jeffrey<br>BealL We will only update links and add notes to this list. |  |   | List of journals falsely claiming to<br>indexed by DOAJ  |
| <ul> <li>1088 Email Press</li> <li>2425 Publishers</li> </ul>  |  |   | DOAJ: Journals added and removed Nonrecommended medical periodi  |

Predatory journals and misleading metrics

# Beall's List Today

### Copy of Original Beall's List With Updates

 Maintained by an anonymous scholar https://beallslist.net

### Disclaimer

I am not Jeffrey Beall. I prefer my identity to be anonymous, largely for the reasons that Beall mentioned in his recent article (see here). However, I can tell you that I am a postdoctoral researcher in one of the European universities and have hands-on experience with predatory journals.

 Some insights available at http://blogs.sciencemag.org/pipeline/archives/ 2018/04/02/predation

Predatory journals and misleading metrics

# White (Positive) Lists

### Lists of Recommended Journals

- Master Journal List by Clarivate Analytics (all journals indexed by Web of Science) http://mjl.clarivate.com
- Science Citation Index by Clarivate Analytics (highly selective subset of the master list) http://mjl.clarivate.com/cgi-bin/jrnlst/jloptions.cgi?PC=K
- Scopus Sources https://www.scopus.com/sources
- ??? publons.com https://publons.com/journal
- ??? Directory of Open Access Journals (DOAJ) https://doaj.org

Predatory journals and misleading metrics

### International Journal of Engineering and Applied Sciences

- https://www.ijeas.org/, ISSN 2394-3661
   Publisher: I.J.E.A.S.
   Editor-in-Chief: Neelam Sharma on Beall's list (predatory)
- http://eaas-journal.org/, ISSN 2305-8269
   Publisher: ARF Printing, Islamabad, Pakistan
   Editor-in-Chief: Unknown (55 members of editorial board)
   on Beall's list (predatory)
- http://ijeas.akdeniz.edu.tr, ISSN 1309-0267
   Publisher: Akdeniz University, Turkey
   Editor-in-Chief: Ömer Civalek
   on DOAJ list (meeting some minimum criteria)

Predatory journals and misleading metrics

# **Final Recommendations**

### When you select a journal:

- get the opinion of your advisor or senior colleague
- think of journals in which you have found valuable papers related to your topic
- when you aim high, go for the best:
  - journals in SCI (not expanded)
  - Q1 or even Top 10% journals in Scopus
- otherwise at least check that
  - the journal is indexed in WoS or Scopus (at least in Q3)
  - AND the journal is not on Beall's list

# Plan

### Ranking of Journals

- Web of Science, impact factor
- Scopus, Scopus journal metrics
- Predatory journals and misleading metrics

## 2 Evaluation of Researchers

- Publications
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Publications

# Publications

### Be specific

In many fields, publications are the most important type of research output (of course, in applied research and development, patents, prototypes etc. are extremely important, too). But which type of publications? The total number does say much.

It is essential to distinguish between books, book chapters, journal papers and contributions to conference proceedings, international and national ones. In your CV and in various forms, always specify exactly what you mean.
#### Publications

# Publications

### Vague

She published ...

- more than 100 papers;
- 43 scientific papers in journals and proceedings;
- 27 papers in prestigious journals.

### Clear

She published ...

- 27 papers in peer reviewed (refereed) international journals;
- 63 contributions in proceedings of international conferences;
- 12 papers in journals with impact factor;
- 21 papers in journals indexed in Scopus;
- 43 publications indexed in Web of Science.

Ranking of Journals Evaluation of Researchers Evaluation of Czech Research Organizations College and University October Contractions College and University Contractions Contractions College and University Contractions Contracti

Publications

# RIV/RVVI publication types

## RVVI (rada pro výzkum, vývoj a inovace)

is the R&D Council of the Czech government.

## RIV (rejstřík informací o výsledcích)

is the Czech national information register of R&D results, covering publications, but also patents, software, prototypes, certified procedures, technologies and many other types of results. Citations are not registered in RIV.

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Publications

# RIV/RVVI publication types (continued)

| Duh | lication | codoc | in | DIV/                                 |
|-----|----------|-------|----|--------------------------------------|
| гир | IICation | coues | ш  | $\mathbf{I} \mathbf{V} \mathbf{V}$ . |

| publication type  | RIV code           |
|-------------------|--------------------|
| book              | В                  |
| book chapter      | С                  |
| proceedings paper | D                  |
| journal paper     | J                  |
| in Web of Science | $J_{\mathrm{imp}}$ |
| in Scopus         | $J_{\mathrm{SC}}$  |
| other             | $J_{\mathrm{ost}}$ |

Publications

# RIV/RVVI publication types (continued)

### Precise definitions used by RIV

- $J_{\rm imp}$ : paper in Web of Science with attributes Article, Review or Letter (NOT a Proceedings Paper)
- $J_{\rm SC}:$  paper in Scopus with attributes Article, Review or Letter (NOT a Conference Paper)
- D: paper in WoS with attribute Proceedings Paper, or in Scopus with attributes Conference Paper or Conference Review; in any case, the paper must have at least 2 pages

The same classification is used by the Czech Science Foundation (GAČR) for evaluation of project results. If you prepare a grant proposal, be careful. Not everything indexed in Scopus is  $J_{\rm SC}.$ 

#### Publications

# Habilitation and Promotion to Full Professor

The habilitation procedure at CTU includes a quantitative evaluation of the applicant's activities in five categories (publications, recognition by scientific community, teaching, grants, community service)

| Scoring of publications and citations       |                |
|---|----------------|
| publication/citation type                   | points         |
| books (international/national)              | 18/8           |
| book chapters (international/national)      | 6/3            |
| journal papers (WoS, Scopus, MathSci)       | 10             |
| papers in int. conf. proceedings (A*/other) | 4/2            |
| papers in Czech journals                    | 0 <sup>†</sup> |
| papers in Czech conference proceedings      | 0              |
| citations in WoS, Scopus, MathSci, ERIH     | 3†             |
| Czech citations                             | 0 <sup>†</sup> |
| † special rules apply to architects         |                |

Citations, h-index

# Citations, h-index

### Be specific

In many fields, citations are the most important measure of impact of a given paper, researcher, or group of researchers. **But which type of citations?** 

It is important to distinguish between self-citations and citations by others (heterocitations, external citations), and to specify in which database the cited and citing works were searched for. The same applies to the h-index.

#### Citations, h-index

### Vague

His publications have been cited ...

- many times;
- all around the world;
- about 900 times;
- 921 times.

### Clear

His publications have 921 citations (including self-citations) in Web of Science and 1431 citations (including self-citations) in Google Scholar.

#### Citations, h-index

## Definition of self-citation (wide sense)

"Self-citations refer to cited references that contain an author name which matches the name of one of the authors of the citing article."

This definition is also used by the V3S web tool used at CTU (https://v3s.cvut.cz).

### Example

- Cited paper: P. Grassl and M. Jirásek: Meso-scale approach ...
- Citing paper: V. Lefort, G. Pijaudier-Cabot, D. Grégoire and P. Grassl: Correlation in the mesoscale ...

This is a self-citation, even for M. Jirásek who did not co-author the citing paper.

Citations, h-index

## Hirsch index (h-index)

h = largest integer for which the following is true:

At least h papers of the given researcher have been cited at least h times (each).

Originally it was perceived as the h-index evaluated from all citations in Web of Science.

However, an *h*-index can be evaluated from any other collection of citations, provided that the precise conditions are specified. For instance, V3S calculates the following values:

- Citations in WoS, without self-citations, no restrictions on cited work (can be a proceedings paper, book, report, ...)
- Same as above, including self-citations
- Citations in WoS, cited paper must be in SCIE/SSCI journals

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#### Citations, h-index

|  |                        | 2016 | 2017 | 2018 | 2019 | 2020 | Total | Average<br>Citations<br>per Year |
|--|------------------------|------|------|------|------|------|-------|----------------------------------|
| Use the checkboxes to remove individual items from this Citation Report or restrict to items published between 1945  Go  |                        | 274  | 307  | 265  | 215  | 0    | 4502  | 195.74                           |
| Meshless methods: An overview and recent developments     By: Belytockio, 1; Konguzu, Y, Organ, D; et al.     COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING Volume: 139 Issue: 14 Pages: 347                                       | Published: DEC 15 1996 | 115  | 113  | 96   | 87   | 0    | 2104  | 87.67                            |
| 2. Analysis of thin shells by the element-free Galerkin method By, Knyll, P. Belyscha, T INTERNITIONAL JOURNAL OF SOLIDS AND STRUCTURES Volume 33 Issue 29-22 Pages 3657-3078  | Published: AUG 1996    | 3    | 11   | 15   | 10   | 0    | 212   | 8.83                             |
| Analysis of thin plates by the element-free Galerkin method     By: Knyll, P. Belytschio, T.     COMPUTATIONAL INECHANICS Volume 12 Pages 26-35 Published: DEC 1995  |                        | 9    | 10   | 10   | 7    | 0    | 194   | 7.76                             |
| 23. Fin Whale Sound Reception Mechanisms: Skull Vibration Enables Low-Frequency Hearing  |                        |      |      |      |      |      |       |                                  |
| By: Granford, Ted W.; Krysl, Petr<br>PLOS ONE Volume: 10 Issue: 1 Article Number: UNSP e0116222 Published: JAN 29 2015   |                        | 6    | 6    | 6    | 4    | 0    | 25    | 5.00                             |
| 24. Assumed-deformation gradient finite elements with nodal integration for nearly incompres<br>By Exoccardo, M.; Micholovi, M.; Krysl, P.<br>INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN ENGINEERING. Volume: 78. Issue: 9. Pages: 11. | · ,                    | 0    | 3    | 2    | 2    | 0    | 23    | 2.09                             |

#### Citations, h-index



#### Citations, h-index

## Example: Petr Krysl, University of California at San Diego



#### Citations, h-index

| Example: Petr Krysl, University of California at San Diego |      |    |  |  |  |  |  |
|--|------|----|--|--|--|--|--|
| database total citations <i>h</i> -index                   |      |    |  |  |  |  |  |
| Web of Science   | 4941 | 25 |  |  |  |  |  |
| Web of Science, w/o self (narrow)                          | 4749 |    |  |  |  |  |  |
| Scopus   | 5901 | 27 |  |  |  |  |  |
| Scopus, w/o self (narrow)                                  | 5725 |    |  |  |  |  |  |
| Scopus, w/o self (wide)                                    | 5573 |    |  |  |  |  |  |
| Google Scholar   | 9161 | 31 |  |  |  |  |  |



(updated on 6 April 2021)

#### Citations, h-index

## Examples of highly cited Czech researchers (Scopus, 6 April 2021)

- Jiří Bártek, medicine/biochemistry, Karolinska Inst., Sweden h = 120; 59,399 citations (Scopus, including self-citations)
- Pavel Hobza, chemistry, IOCB Czech Academy of Sciences h = 106; 44,152 citations
- Petr Widimský, medicine, Charles University h = 64; 46,659 citations
- Petr Pyšek, biology, Stellenbosch University, South Africa h = 93; 36,142 citations
- Zdeněk P. Bažant, engineering, Northwestern University, USA h = 97; 39,430 citations
- Ivo Babuška, math & engineering, U. of Texas at Austin, USA h = 77; 27,246 citations



#### Citations, h-index

## Top values of h-index at CTU (based on V3S records)

|      | Person                            | rson   |            |         |                     | Incl. self-citations |                     | SCIE/SSCI journals |                     |                    |  |
|------|-----------------------------------|--------|------------|---------|---------------------|----------------------|---------------------|--------------------|---------------------|--------------------|--|
| Rank | Name                              | Number | Department | H-index | Citations in<br>WoS | H-index              | Citations in<br>WoS | H-index            | Citations in<br>WoS | Articles in<br>WoS |  |
| 1    | Šimák Vladislav prof. RNDr. DrSc. | 40848  | 14101      | 87      | 44977               | 118                  | 66985               | 82                 | 38942               | 1073               |  |
| 2    | Vokáč Petr Ing. 📵                 | 252509 | 14101      | 86      | 43905               | 114                  | 65326               | 80                 | 38332               | 1239               |  |
| 3    | Smolek Karel Ing. Ph.D. 🔞         | 101670 | 35201      | 80      | 37583               | 110                  | 58159               | 74                 | 32422               | 998                |  |
| 4    | Pospíšil Stanislav Ing. DrSc. 💿   | 101650 | 35201      | 80      | 37170               | 109                  | 57827               | 74                 | 32089               | 1128               |  |
| 5    | Augsten Kamil Ing. Ph.D. 🔞        | 329060 | 14116      | 80      | 36707               | 107                  | 54785               | 74                 | 32486               | 1086               |  |
| 6    | Vacek Václav doc. Ing. CSc. 🔕     | 20216  | 12102      | 79      | 35764               | 104                  | 54795               | 72                 | 30833               | 972                |  |
| 7    | Solar Michael RNDr. CSc. 🔞        | 24306  | 35201      | 78      | 35207               | 105                  | 54482               | 72                 | 30530               | 846                |  |
| 8    | Slavíček Tomáš Mgr. 💿             | 308923 | 35201      | 78      | 35155               | 104                  | 54313               | 72                 | 30492               | 858                |  |
| 9    | Sopko Vít Ing. Ph.D. 🔞            | 250318 | 14112      | 77      | 32142               | 104                  | 49691               | 71                 | 27632               | 618                |  |
| 10   | Jakůbek Jan Ing. Ph.D.            | 101644 | 35201      | 76      | 31067               | 103                  | 47738               | 71                 | 26447               | 647                |  |
| 11   | Tureček Daniel Ing.               | 339573 | 35201      | 76      | 30561               | 103                  | 45923               | 71                 | 26807               | 601                |  |
| 12   | Sopko Bruno prof. RNDr. DrSc. 🔞   | 21975  | 14111      | 75      | 30315               | 102                  | 46599               | 70                 | 25808               | 547                |  |
| 13   | Kohout Zdeněk RNDr. Ph.D. 🔞       | 23224  | 12102      | 75      | 30015               | 102                  | 45947               | 69                 | 25597               | 514                |  |
| 14   | Šuta Michal Ing.                  | 340712 | 14102      | 74      | 29486               | 102                  | 44554               | 69                 | 25989               | 582                |  |
| 15   | Šolc Jaroslav Ing. Ph.D.          | 319016 | 14116      | 74      | 28249               | 102                  | 41983               | 69                 | 24660               | 506                |  |

#### Citations, h-index

### Most cited papers of a top researcher at CTU (V3S records)

| Rank | Result ID | Result kind<br>Result year | Result reference  | Matching<br>citation |
|------|-----------|----------------------------|---|----------------------|
| 1    | 202645    | CLA<br>2012                | Aad, G.; Abajyan, T.; Abbott, B.; Abdallah, J.; Khalek, S. Abdel; Augsten, K.; Holý, T.; Hubáček, Z. et al.<br>Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS<br>detector at the LHC<br>Physics Letters B. 2012, 716(1), 1-29. ISSN 0370-2693.                                       | 4,926 -              |
| 2    | 149770    | CLA<br>2008                | Aad, G; Abat, E; Abdallah, J; Abdelalim, A.A; Abdesselam, A; Chren, D; Horažďovský, T; Kohout, Z. et al.<br>The ATLAS Experiment at the CERN Large Hadron Collider<br>Journal of Instrumentation. 2008, 3(508003), ISSN 1748-0221.  | 1,341 -              |
| 3    | 177380    | CLA<br>2010                | Aad, G.; Abbott, B.; Abdallah, J.; Abdelalim, A. A.; Abdesselam, A.; Holý, T.; Jakůbek, J.; Král, V. et al.<br>The ATLAS Simulation Infrastructure<br>European Physical Journal C. 2010, 70(3), 823-874. ISSN 1434-6044.  | 734 -                |
| 4    | 202149    | CLA<br>2012                | Aad, C.; Abbott, B.; Abdallah, J.; Abdelalim, A.A.; Abdesselam, A.; Hubäček, Z.; Vlasák, M.; Augsten, K. et al.<br>Combined search for the Standard Model Higgs boson using up to 4.9 fb(-1) of pp collision data at root<br>s=7 TeV with the ATLAS detectors at the LHC<br>Physics Letters B. 2012, 710(1), 49-66. ISSN 0370-2693. | 488 -                |
| 5    | 201965    | CLA<br>2012                | Aad, G; Abbott, B; Abdallah, J; Khalek, SA; Abdelalim, AA; Hubáček, Z; Vlasák, M; Augsten, K. et al.<br>Search for the Standard Model Higgs Boson in the Diphoton Decay Channel with 4.9 fb(-1) of pp Collision<br>Data at root = 77 TeV with ATLAS<br>Physical Review Letters. 2012, 108(11), 1-19, ISSN 0031-9007.                | 483 -                |

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#### Citations, h-index

### Collaborative papers



Physics Letters B Volume 716, Issue 1, 17 September 2012, Pages 1–29



## Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC $\star$

This paper is dedicated to the memory of our ATLAS colleagues who did not live to see the full impact and significance of their contributions to the experiment. ATLAS Collearation\*,

G. Aad<sup>48</sup>, T. Abajyan<sup>21</sup>, B. Abbott<sup>111</sup>, J. Abdallah<sup>12</sup>, S. Abdel Khalek<sup>115</sup>, A.A. Abdelalim<sup>49</sup>, O. Abdinov<sup>11</sup>, R. Aben<sup>105</sup>, B. Abi<sup>112</sup>, M. Abolins<sup>58</sup>, O.S. AbouZeid<sup>158</sup>, H. Abramowicz<sup>153</sup>, H. Abreu<sup>136</sup>, B.S. Acharya<sup>164</sup>, 164b, L. Adamczyk<sup>20</sup>, D.L. Adams<sup>25</sup>, T.N. Addy<sup>56</sup>, J. Adelman<sup>176</sup>, S. Adomeit<sup>90</sup>, P. Adragna<sup>75</sup>, T. Adye<sup>129</sup>, S. Aefsky<sup>23</sup>, J.A. Aguilar-Saavedra<sup>124b, a</sup>, M. Agustoni<sup>17</sup>, M. Aharrouche<sup>81</sup>, S.P. Ahlen<sup>22</sup>, F. Ahles<sup>48</sup>, A. Ahmad<sup>145</sup>, M. Ahsan<sup>41</sup>, G. Aletli<sup>1338, 133b</sup>, T. Akdogan<sup>198</sup>, T.P.A. Åkesson<sup>79</sup>, G. Akimoto<sup>155</sup>, A.V. Akimov<sup>94</sup>, M.S. Alam<sup>2</sup>, M.A. Alam<sup>76</sup>, J. Albert<sup>100</sup>, S. Albrand<sup>55</sup>, M. Aleksa<sup>30</sup>, I.N. Aleksandrov<sup>64</sup>, F. Alessandria<sup>89a</sup> C. Alexa<sup>26a</sup>, G. Alexander<sup>153</sup>, G. Alexandre<sup>49</sup>, T. Alexopoulos<sup>10</sup>, M. Alhroob<sup>164a, 164c</sup>, M. Allev<sup>16</sup>, G. Alimont/998 J Alison<sup>120</sup> B M M Albrooke<sup>15</sup> P.P. Alboot<sup>75</sup> S F. Albood-Spiers<sup>53</sup> J Almond<sup>62</sup> A Aloisio<sup>102a, 102b</sup>, R. Alon<sup>172</sup>, A. Alonso<sup>79</sup>, F. Alonso<sup>70</sup>, A. Altheimer<sup>35</sup>, B. Alvarez Gonzalez<sup>68</sup>, M.G. Alviogi102a, 102b, K. Amako<sup>65</sup>, C. Amelung<sup>23</sup>, V.V. Ammosov<sup>128</sup>, -, S.P. Amor Dos Santos<sup>124a</sup>, A. Amorim<sup>124a, b</sup>, N. Amram<sup>155</sup>, C. Anastopoulos<sup>30</sup>, L.S. Ancu<sup>17</sup>, N. Andari<sup>115</sup>, T. Andeen<sup>35</sup>, C.F. Anders<sup>58b</sup>, G. Anders<sup>55a</sup>, K.J. Anderson<sup>31</sup>, A. Andreazza<sup>55a</sup>, <sup>55b</sup>, V. Andrei<sup>55a</sup>, M.-L. Andrieux<sup>55</sup>, X.S. Anduaga<sup>70</sup>, S. Angelidakis<sup>9</sup>, P. Anger<sup>44</sup>, A. Angerami<sup>35</sup>, F. Anghinotfi<sup>30</sup>, A. Anisenkov<sup>107</sup>, N. Anios<sup>124</sup>, A. Annovi<sup>47</sup>, A. Antonaki<sup>9</sup>, M. Antonelli<sup>47</sup>, A. Antonov<sup>96</sup>, J. Antos<sup>144</sup>b, F. Anulli<sup>132a</sup>, M. Aoki<sup>101</sup>, S. Aoun<sup>83</sup>, L. Aperio Bella<sup>5</sup>, R. Apolle<sup>118, c</sup>, G. Arabidze<sup>60</sup>, I. Aracena<sup>143</sup>, Y. Arai<sup>65</sup>, A.T.H. Arce<sup>45</sup>, S. Arfaoui<sup>146</sup>, J.-F. Arguin<sup>65</sup>, E. Arik<sup>19a, -</sup>, M. Arik<sup>19a</sup>, A.J. Armbruster<sup>87</sup>, O. Amaez<sup>81</sup>, V. Arnal<sup>80</sup>, C. Arnault<sup>115</sup>, A. Artamonov<sup>95</sup>, G. Artoni<sup>1328, 1326</sup>, D. Arutinov<sup>21</sup>, S. Asai<sup>155</sup>, S. Ask<sup>26</sup>, B. Åsman<sup>1468, 1466</sup>, L. Asouith<sup>6</sup>, K. Assamagan<sup>35</sup>, A. Astbury<sup>169</sup>, M. Atkinson<sup>165</sup>, B. Aubert<sup>5</sup>, E. Auge<sup>118</sup>, K. Augsten<sup>127</sup>, M. Aurousseau<sup>1458</sup>, G. Avolio<sup>163</sup>, R. Avramidou<sup>10</sup>, D. Axen<sup>168</sup>, G. Azuelos<sup>93, d</sup>, Y. Azuma<sup>155</sup>, M.A. Baak<sup>30</sup>, G. Baccaglioni<sup>89a</sup>, C. Bacci<sup>154a, 154b</sup>, A.M. Bach<sup>15</sup>, H. Bachacou<sup>136</sup>, K. Bachas<sup>30</sup>, M. Backes<sup>49</sup>, M. Backhaus<sup>21</sup>, J. Backus Mayes<sup>143</sup>, E. Badescu<sup>266</sup>, P. Bagnaia<sup>1328</sup>, <sup>1320</sup>, S. Bahinipati<sup>3</sup>, Y. Bai<sup>336</sup>, D.C. Bailey<sup>158</sup>, T. Bain<sup>158</sup>, J.T. Baines<sup>129</sup>, O.K. Baker<sup>176</sup>, M.D. Baker<sup>25</sup>, S. Baker<sup>77</sup>, P. Balek<sup>126</sup>, E. Banas<sup>39</sup>, P. Banerjee<sup>55</sup>, Sw. Banerjee<sup>175</sup>, D. Banfi<sup>30</sup>, A. Bangert<sup>150</sup>, V. Bansal<sup>169</sup>, H.S. Bansil<sup>18</sup>, L. Barak<sup>172</sup>, S.P. Baranov<sup>54</sup>, A. Barbaro Galtieri<sup>15</sup>, T. Barber<sup>45</sup>, E.L. Barberio<sup>86</sup>, D. Barberis<sup>500, 500</sup>, M. Barbero<sup>21</sup>, D.Y. Bardin<sup>64</sup>, T. Barillan<sup>99</sup>, M. Barisonzi<sup>176</sup>, T.

... in total about 2,600 authors.

#### Citations, h-index

| <sup>o</sup> rc | of. Jiří Ma                   | tas,  | Faculty   | of E   | lectr                          | ical Ei   | ngine         | eering             |             |        |        |
|-----------------|-------------------------------|---|---|--|--------------------------------|---|---------------|--------------------|-------------|--------|--------|
| 23              | Petráček Vojtěch doc. RNDr    | . CSc. 🔞  | 251869  | 14102  | 60                             | 11922   | 69            | 16268              | 51          | 8953   | 348    |
| 24              | Günther Jaroslav Ing. Ph.D.   |   | 329049  | 14102  | 59                             | 12889   | 78            | 20169              | 54          | 11125  | 288    |
| 25              | Matas Jiří prof. Ing. Ph.D. @ | )   | 32913   | 13162  | 58                             | 21509   | 59            | 22805              | 20          | 4357   | 42     |
| 26              | Sodomka Jaromír doc. Ing.     | CSc.  | 60695   | 16121  | 58                             | 20866   | 78            | 31908              | 55          | 17960  | 311    |
| 27              | Sopczak André doc. Dr. 🔞      |   | 408477  | 35201  | 58                             | 14835   | 76            | 23271              | 53          | 13060  | 635    |
| 1               | 57875                         | CLA<br>1998   | On Combini  | ef, M.; Duin, R<br>ng Classifiers<br>ions on Patter  |                                | J.<br>d Machine Intellig                                    | ence. 1998, 3 | 20(3), 226-239. IS | SN 0162-882 |        | 2835 ► |
| 2               | 103426                        | CLA<br>2004   | Robust wide   | Matas, J.; Chum, O.; Urban, M.; Pajdla, T.<br>Robust wide-baseline stereo from maximally stable extremal regions<br>Image and Vision Computing. 2004, 22(10), 761-767. ISSN 0262-8856. |                                |   |               |                    |             | 2493 ▶ |        |
| 3               | 200439                        | CLA<br>2012   | Tracking-Lea  | Kálal, Z; Mikolajczyk, K; Matas, J.<br>Tracking-Learning-Detection<br>IEEE Transactions on Pattern Analysis and Machine Intelligence. 2012, 34(7), 1409-1422, ISSN 0162-8828.          |                                |   |               |                    |             |        | 2077   |
| 4               | 117032                        | CLA<br>2005   | Mikolajczyk K.; Tuytelaars. T.; Schmid, C.; Zisserman, A.; Matas, J.; Schaffalitzky, F.; Kadir, T.; Van Gool, L.<br>A Comparison of Affine Rogion Detectors<br>International Journal of Computer Vsion. 2005, 65(7), 43-72. ISSN 0920-5691. |  |                                |   |               |                    |             |        |        |
| 5               | 76764                         | STV         Matas, J.; Chum, O.; Urhan, M.; Pajdla, T.         1082 ▶           2002         Robust Wide baseline Stereo from Maximally Stable Extremal Regions         1082 ▶           In: Proceedings of the British Machine Vision Conference. London: British Machine Vision Association, 2002, p.         384-393, ISBN 1-90725-19-7. |   |  |                                |   |               |                    |             |        |        |
| 6               | 175503                        | STA<br>2010   | P-N Learnin<br>In: CVPR 201   | D: Proceeding:   | oing Binary C<br>s of the 2010 | lassifiers by Stru<br>IEEE Computer Sc<br>pp. 49-56. ISSN 1 | ciety Confer  | ence on Compute    |             |        | 824    |

Scopus: h = 64; 25,824 citations (6 April 2021)

# Plan

## Ranking of Journals

- Web of Science, impact factor
- Scopus, Scopus journal metrics
- Predatory journals and misleading metrics

## 2 Evaluation of Researchers

- Publications
- Citations, h-index

# 3 Evaluation of Czech Research Organizations

## 4 College and University Rankings

# Evaluation of Czech Research Organizations

### Before 2016

- Quantitative evaluation based on points attributed to various types of research output - papers, books, patents, software, ...
- Known as the "coffee grinder", strongly criticized

## Methodology 2017+ (M17+)

- Approved by the Czech government on 8 February 2017
- Gradual implementation of 5 modules
- National and international expert panels
- Documents: [English], [Czech]
- Results (in Czech): https://hodnoceni.rvvi.cz

# Methodology 2017+

### Modules

- Quality of selected results
  - Basic research
  - 2 Applied research [link]
- 2 Research performance
  - National bibliographic results [link], WoS (AIS)
  - Institutions [link]
- 8 Relevance to society
- Viability
- Overlaps Development strategy (including self-evaluation)

# Methodology 2017+

### Original roadmap

- 2017–2019: warm-up evaluations of modules
- 2020+: 1 full-module evaluation per 5 years

### Current state

- Modules 1 and 2 evaluated for 2017, 2018, 2019
- Modules 3-5: reports by international panels being processed
- Indicative ranking of institutions [link]
- Public universities, Rank A (tentative) [link]
   Czech Technical University in Prague, University of South Bohemia, Masaryk University, Charles University, Palacký University, University of Chemistry and Technology

Ranking of Journals Evaluation of Researchers Evaluation of Czech Research Organizations College and University Construction College and University Construction College and University Construction Con

# Module 1 — Quality of selected results

- Peer review by panels composed of Czech experts
- Criteria: contribution to knowledge or social relevance
- Grading: world-leading (1), excellent (2), very good (3), average (4), and below average (5)
- (Detailed) comments available

|                   | Σ    |    | Grade |     |     |     |
|-------------------|------|----|-------|-----|-----|-----|
|                   |      | 1  | 2     | 3   | 4   | 5   |
| Number of results | 437  | 11 | 58    | 136 | 160 | 72  |
|                   | 100% | 3% | 13%   | 31% | 37% | 16% |

Evaluation 2019 - Engineering and Technology

- Grade 1: CTU 6/11
- Grade 2: CTU 22/58

Ranking of Journals Evaluation of Researchers Evaluation of Czech Research Organizations College and University Construction College and University Construction Construction

# Module 2 — Research performance

- Based on Web of Science and Article Influence Score
- Supplemented with comments by expert panels
- Example:



# Plan

## Ranking of Journals

- Web of Science, impact factor
- Scopus, Scopus journal metrics
- Predatory journals and misleading metrics

## 2 Evaluation of Researchers

- Publications
- Citations, h-index

## 3 Evaluation of Czech Research Organizations

## 4 College and University Rankings

# College and University Rankings

### Prestigious University Rankings

- Times Higher Education (THE) [link]
- QS World University Rankings [link]
- Academic Ranking of World Universities (ARWU) [link]

### Examples of most recent rankings

| -             | THE (2021) | QS (2021) | ARWU (2019) |
|---------------|------------|-----------|-------------|
| Charles Univ. | 401–500    | 260       | 201-300     |
| CTU           | 1,001+     | 432       | 701-800     |

Controversies?