



ELSEVIER



Introducing SciVal

25th May, 2021

Kate Patyrak
Research Intelligence

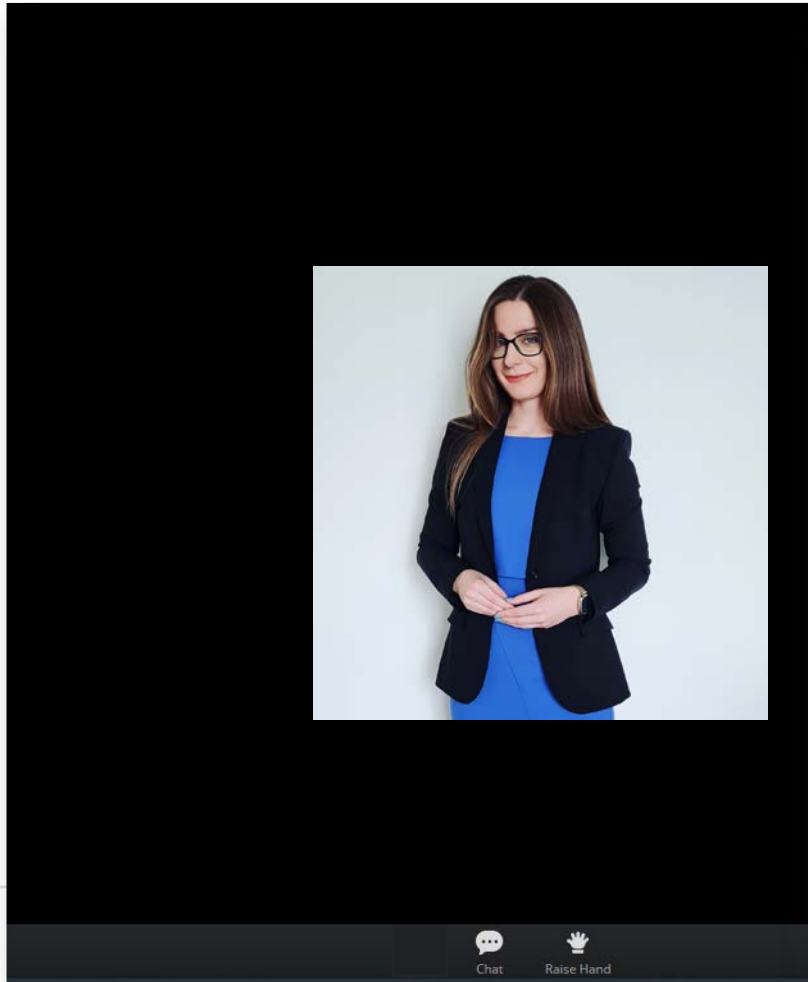




Chat



Raise Hand



Zoom Group Chat

To: All panelists and attendees
Type message here ...





ON AIR



ELSEVIER



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25th May, 2021

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Research Intelligence



Objectives

Help you gain an overview of SciVal and an introduction to using it practically so you can get started after the session.

Topics covered will include:

1. What are the basics?
2. How can SciVal help?
3. What is the underlying dataset?
4. Location and content of the help files

Accessing SciVal at www.scival.com



Scopus >

Check access

Sign in

Welcome to SciVal

SciVal provides access to the research performance of over 20,200 research institutions and their associated researchers, from 231 nations worldwide.

Don't have access? [Request a consultation](#) >



Find

Find collaborators to spur innovative solutions to complex problems.



Demonstrate

Demonstrate my impact for promotion and funding applications.



Discover

Discover relevant cross-disciplinary areas of research.

"Elsevier's suite of research solutions empowers our researchers with rich data."

Vitaly Began

Moscow Institute of Physics and Technology



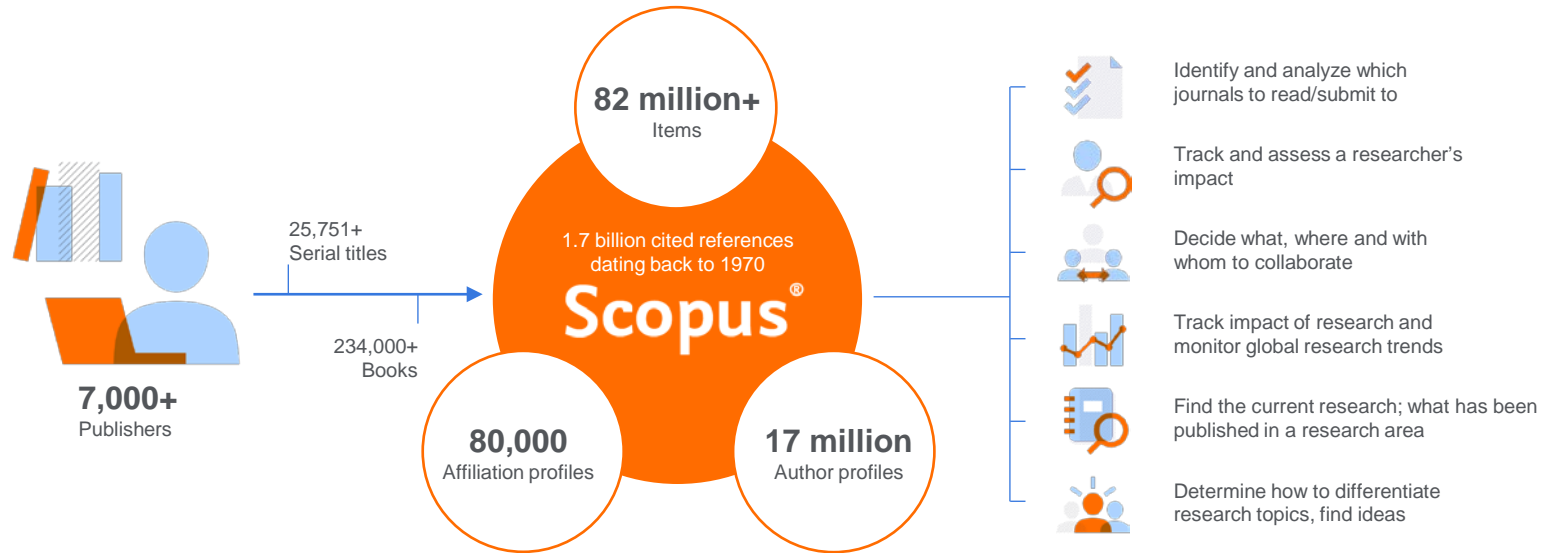
Find out more

- [Learn more about SciVal](#) >
- [Request a consultation](#) >
- [Contact the helpdesk](#) >
- [View the latest webinars](#) >
- [Follow SciVal](#)



If you haven't previously registered for Scopus or ScienceDirect then please go to **Register Now**. Use VPN off-campus or ask Shelly for a Remote Access link

Scopus uniquely combines a comprehensive, curated abstract and citation database with enriched data and linked scholarly content.



Quickly find relevant and trusted research, identify experts, and access reliable data, metrics and analytical tools to support confident decisions around research strategy – all from one database and one subscription.

Scopus Coverage Summary (Mar. 2021)

Global representation means global discovery across all subjects and content types

82.1M records from **25.7K** serials, **101K** conferences and **234K** books

from more than **7,000** publishers in **105** countries

- Updated daily—approximately **10,000** articles per day indexed
- **16.92M** open access documents
- “Articles in Press” from **>8,075** titles
- **698K** preprints from multiple preprint servers
- **6,324** active Gold Open Access journals indexed

Number of journals by subject area**

Physical sciences
8,529

Journals

25,751** active peer-reviewed journals

292 trade journals

Health sciences
7,136

6,324 Gold OA Journals (DOAJ/ROAD)

Social sciences
10,574

14.1M fully-indexed funding acknowledgements

677K preprints

Life sciences
4,915

- Full metadata, abstracts and cited references (refs post-1970 only)
- Citations back to 1970

Conferences

101K conference events

10.47M conference papers

Mainly Engineering and Computer Sciences

Books

63.3K individual book series volumes

234K stand-alone books

1.95M total book items

Focus on Social Sciences and A&H

Conferences

46.0M patents

5 major patent offices:

- WIPO
- EPO
- USPTO
- JPO
- UK IPO

*Journals may be classified in multiple subject areas: this count includes current actively indexed titles only

**Total number of Scopus journals in database including inactive titles is 40,804



Content Types

- 25,751 active titles
- 220,000 books
- 9.9M conference papers
- 44M patents
- 21M datasets

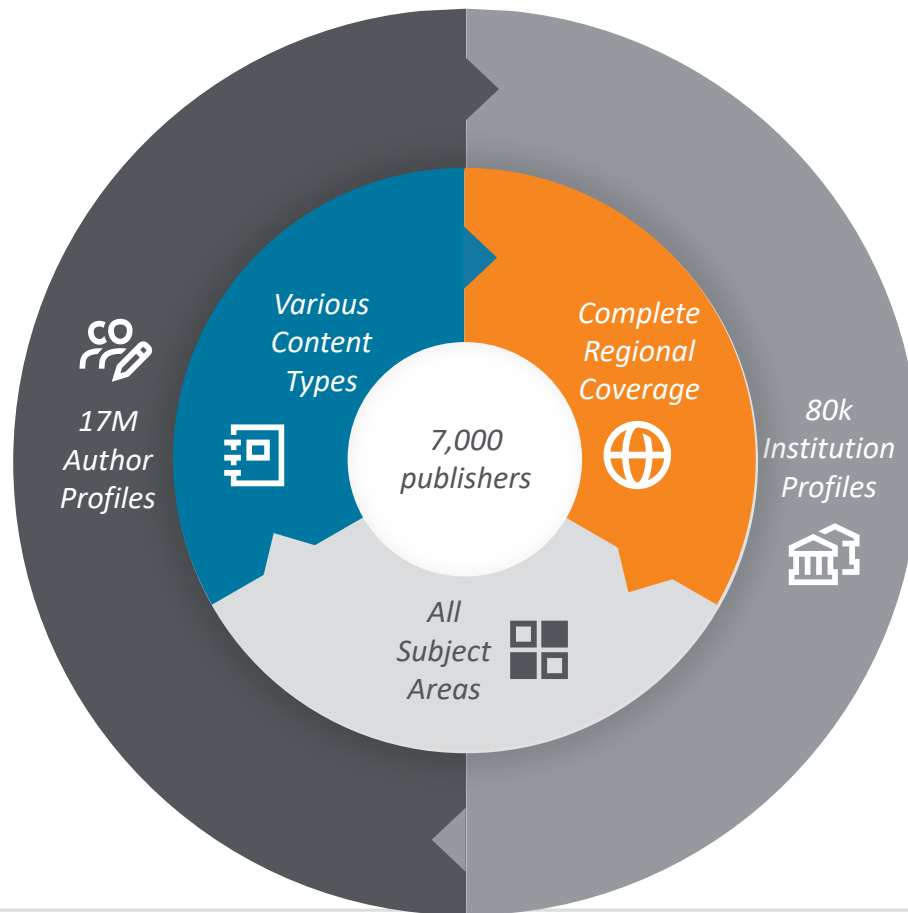


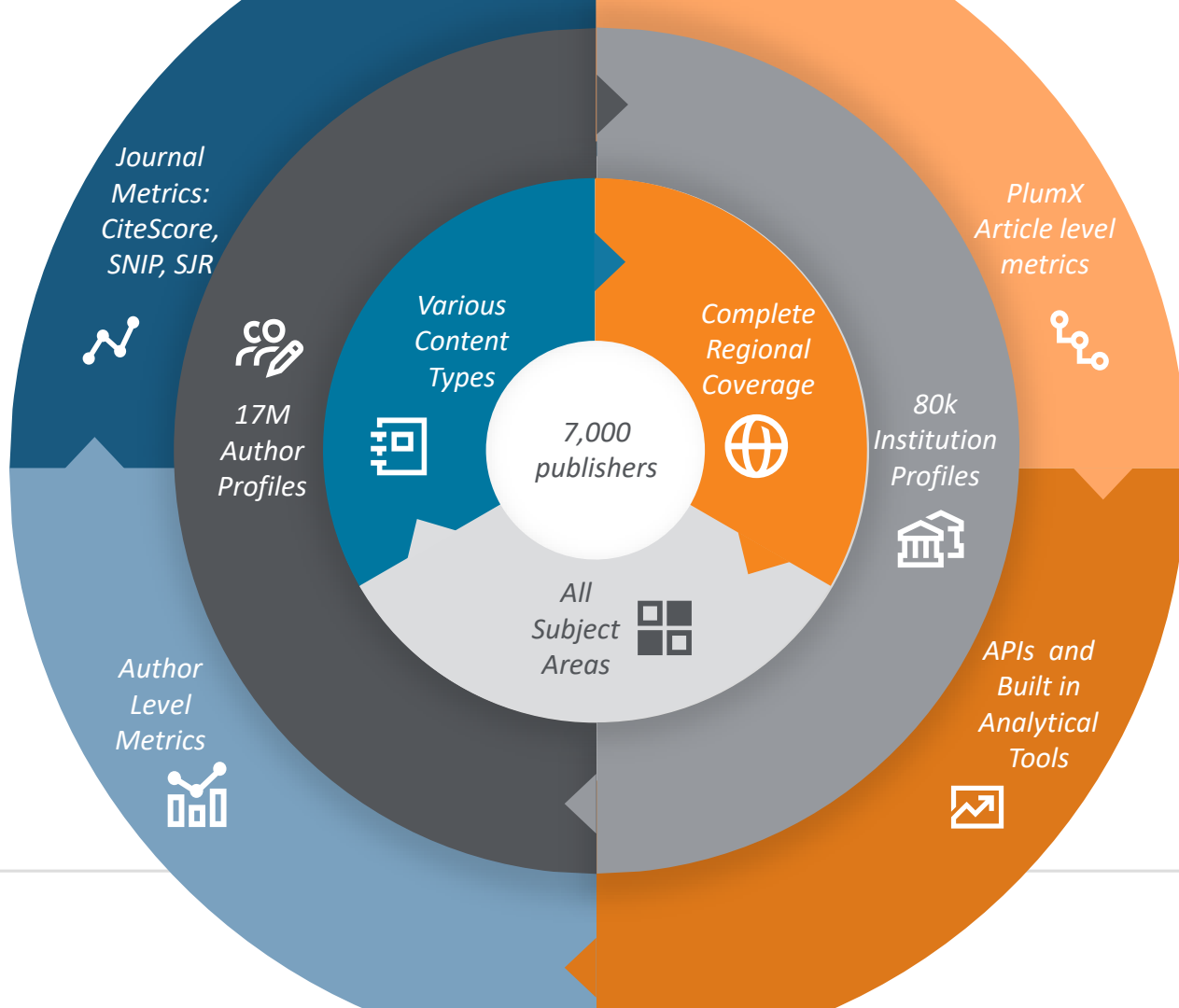
Coverage by Region

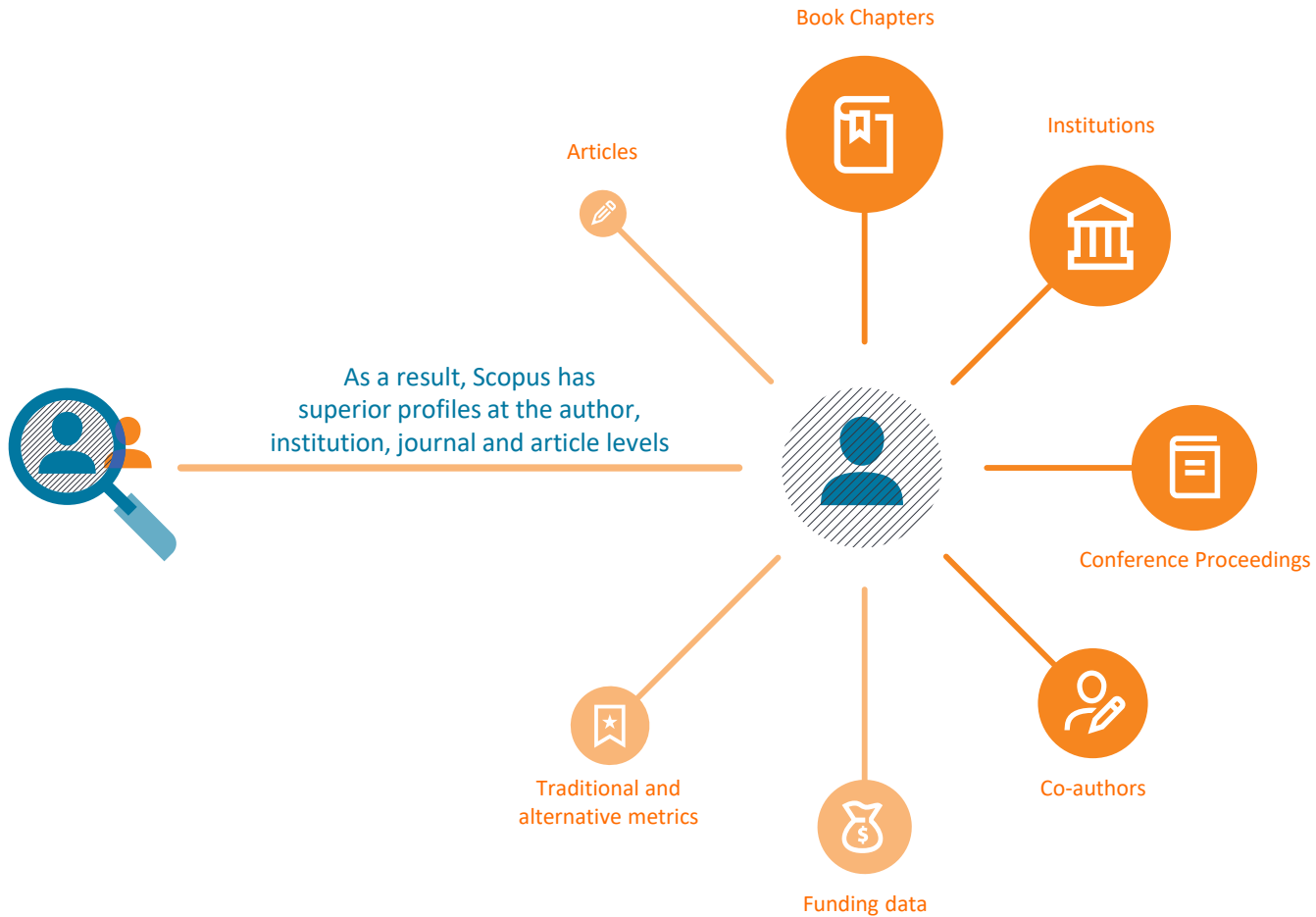
- 6,600 titles from NOAM
- 860 titles from Middle East & Africa
- 12,170 titles from Western Europe
- 1,750 titles from Eastern Europe
- 790 titles from Latin America
- 2,230 titles from Asia Pacific

Subject area coverage

- Physical Sciences 13,312
- Health Sciences 14,448
- Social Sciences 12,464
- Life Sciences 7,295







Which Data Sources Feed Into SciVal?





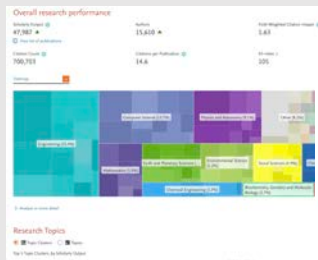
SciVal in a nutshell

SciVal provides access to the research performance of ~20,000 research institutions and their associated researchers from more than 230 nations worldwide



Visualize research performance

Ready-made-at a glance snapshots of any selected entity



Benchmark your progress

Flexibility to create and compare any research groups



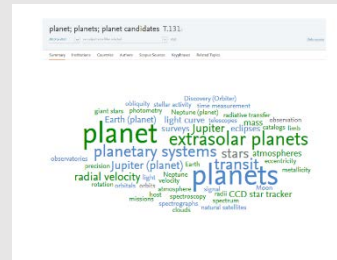
Develop collaborative partnerships

Identify and analyze existing and potential collaboration opportunities



Analyze research trends

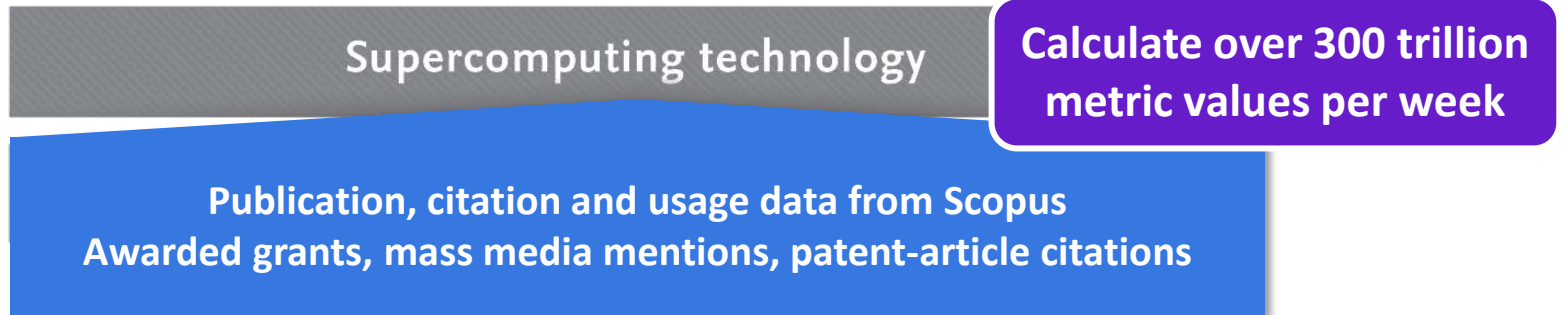
Analyze research trends to discover the top performers and rising stars



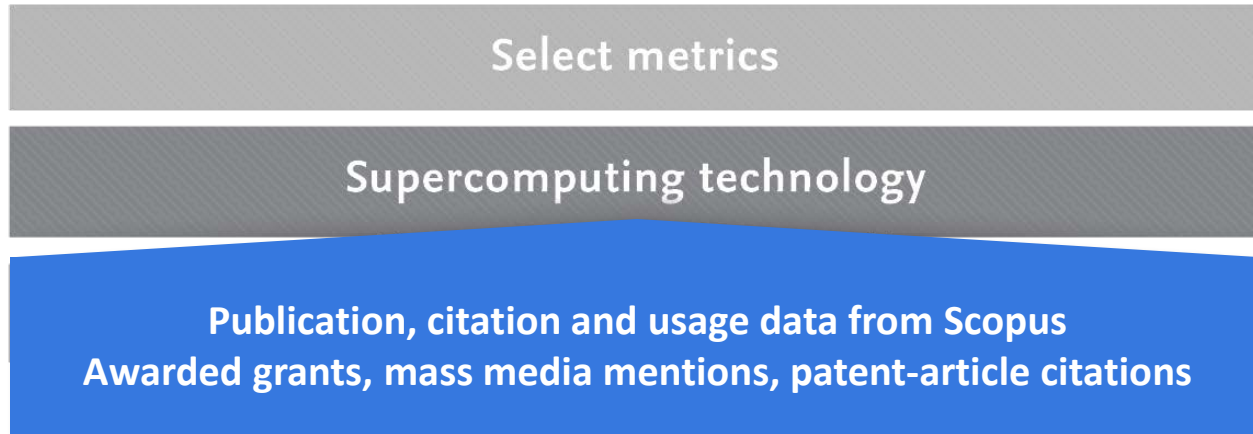
The layers of SciVal

Publication, citation and usage data from Scopus
Awarded grants, mass media mentions, patent-article citations

The layers of SciVal

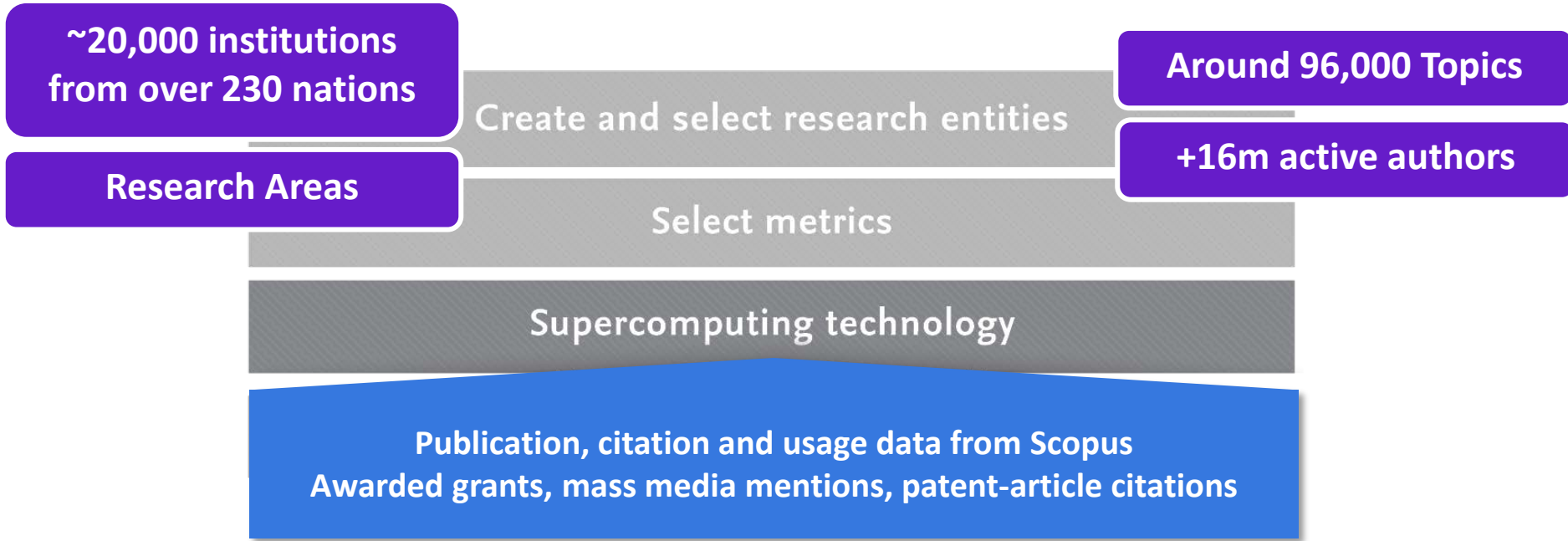


The layers of SciVal

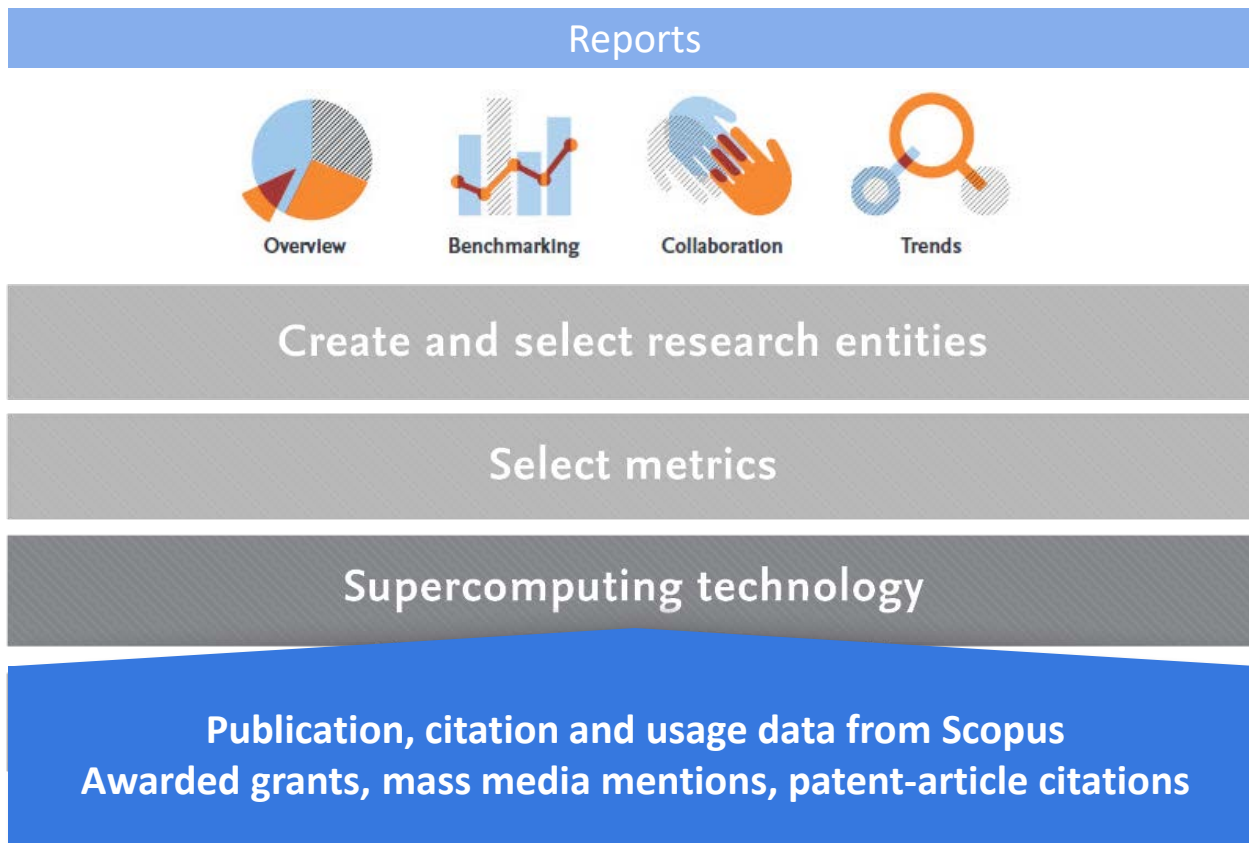




The layers of SciVal



The layers of SciVal



Some questions addressed using SciVal

“How can we demonstrate excellence in a way that best shows our unique strengths to secure funding and attract the best talent?”



“I want to explore the various scenarios I’m considering to set up a centre of excellence. How can the data provide me with insights?”



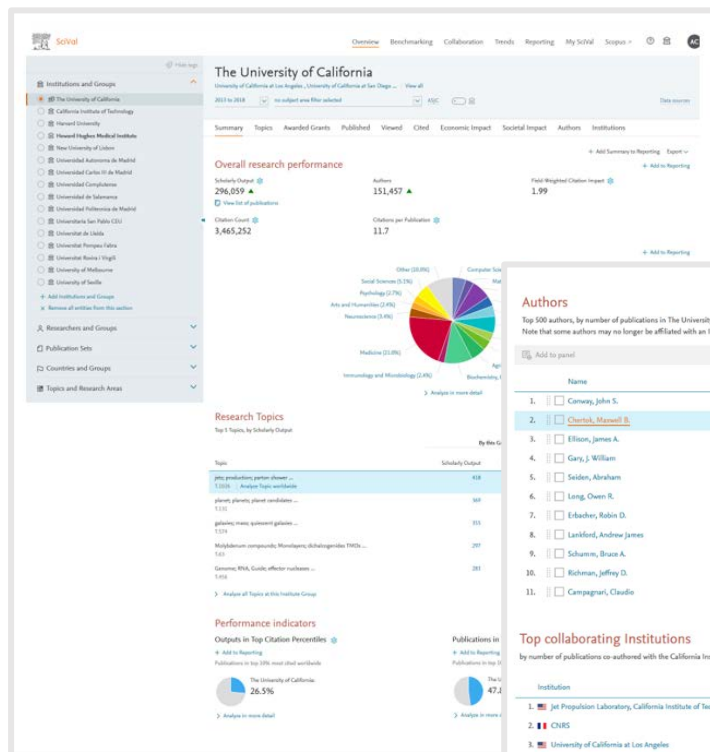
“My VC is going to China; who do our academics collaborate with there and how can we potentially develop greater partnerships?”



“How can I see who’s excelling in a specific subject for potential collaboration or partnership opportunities?”



“How can we demonstrate excellence in a way that best shows our unique strengths to secure funding and attract students?”



Authors

Top 500 authors, by number of publications in The University of California over the period 2013 to 2018. Note that some authors may no longer be affiliated with an institution in The University of California.

Name	Publications	Most recent publication	Citations	h-index
1. Conway, John S.	620	2018	14,867	104
2. Chen, Maxwell B.	619	2018	14,841	99
3. Ellison, James A.	616	2018	15,267	90
4. Gary, J. William	615	2018	15,611	97
5. Seiden, Abraham	615	2018	16,138	99
6. Long, Owen R.	612	2018	15,494	95
7. Erbacher, Robin D.	611	2018	14,822	98
8. Lankford, Andrew James	597	2018	16,073	95
9. Schumm, Bruce A.	592	2018	15,966	93
10. Richman, Jeffrey D.	589	2018	15,350	100
11. Campagnari, Claudio	578	2018	15,281	103

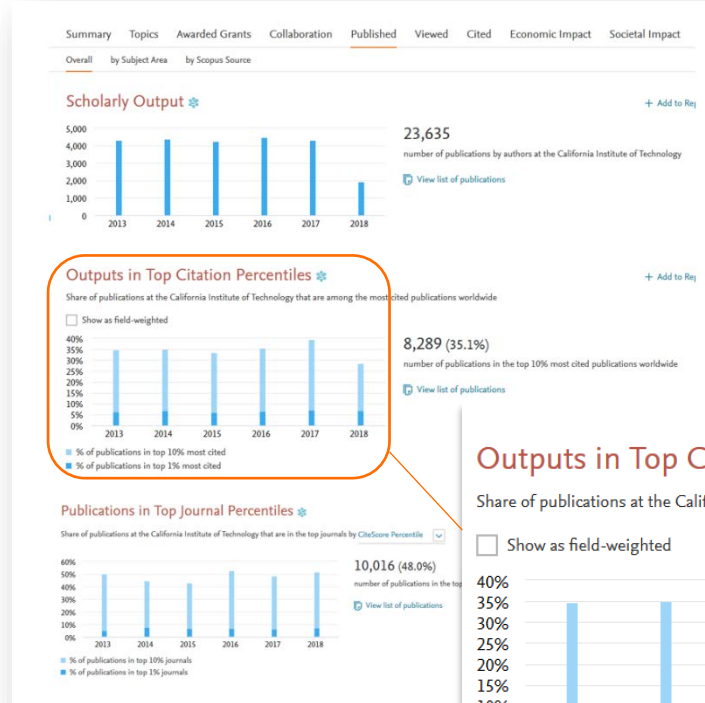
Top collaborating Institutions

by number of publications co-authored with the California Institute of Technology

Institution	Co-authored publications	Citations received for co-authored publications	Co-authors	Field-Weighted Citations
1. JET Propulsion Laboratory, California Institute of Technology	5,096	70,252	3,460	2.28
2. CNRS	2,593	81,221	2,611	4.19
3. University of California at Los Angeles	1,269	36,205	1,151	2.83
4. Massachusetts Institute of Technology	1,590	50,531	1,045	4.64
5. University of California at Berkeley	1,516	56,305	941	4.25
6. CNRS Paris Saclay	1,490	57,736	1,108	5.12
7. Harvard University	1,455	47,237	1,087	3.96
8. Princeton University	1,404	42,687	594	4.31
9. NASA Goddard Space Flight Center	1,351	34,010	724	3.92
10. University of Maryland	1,324	47,959	498	4.79
219. Howard Hughes Medical Institute	379	12,602	301	3.59

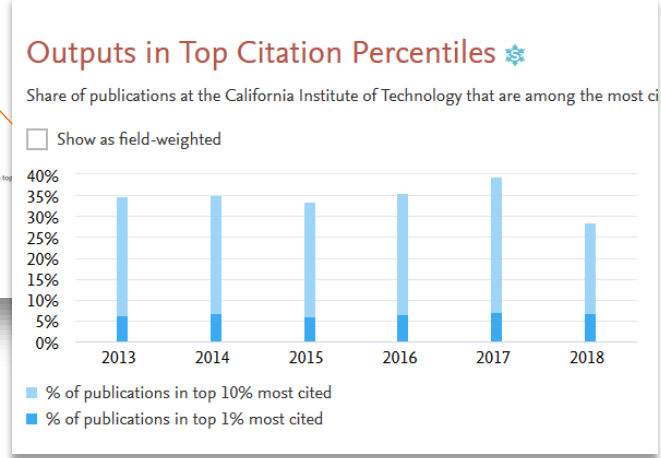
View the disciplinary focus of your institutions and your top researchers

Look through different metrics to identify ones that demonstrates your institution's research excellence



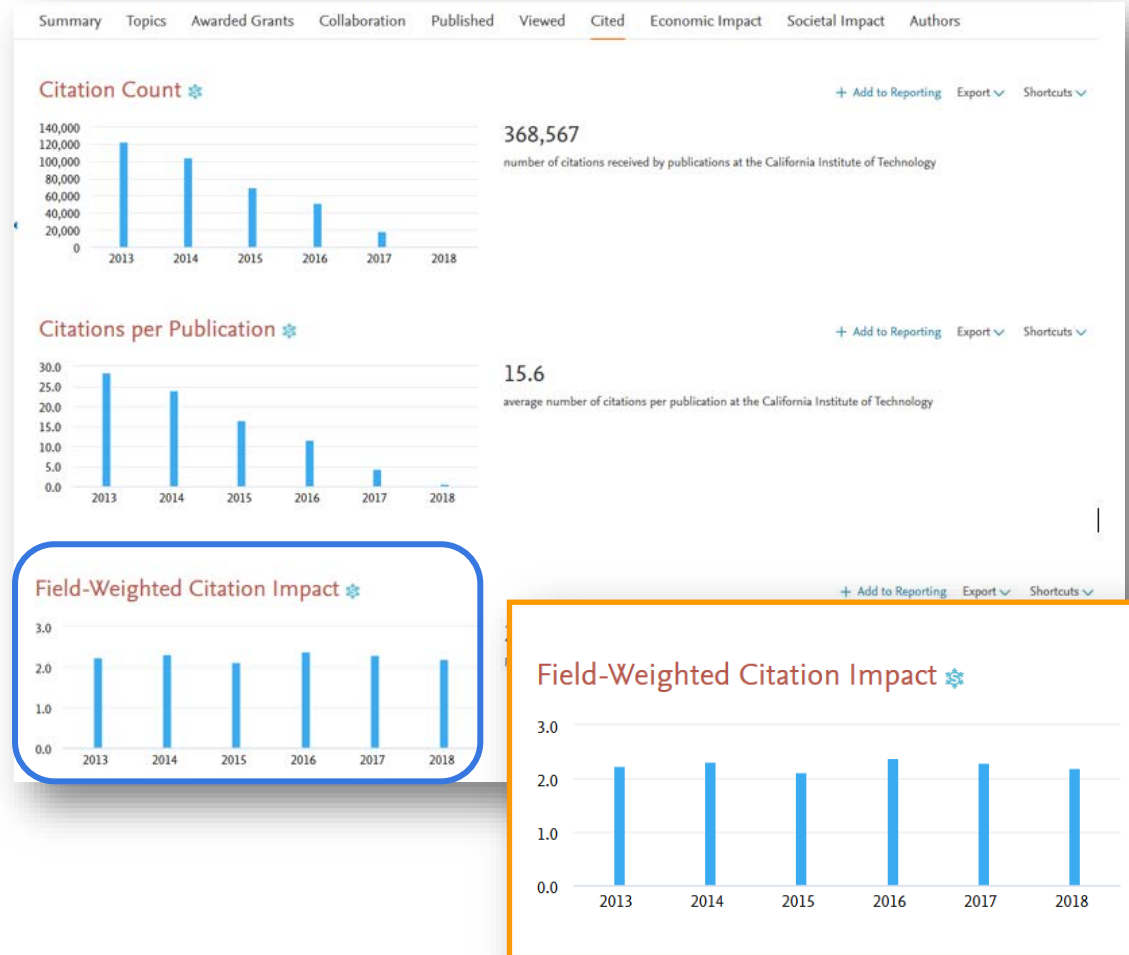
2017
7.1% in top 1% most cited
39.6% in top 10% most cited

See how many of your publications fall into the top 1% and 10% of the most cited articles in the world



Look through different metrics to identify ones that demonstrates your institution's research excellence

View Field-Weighted Citation Impact that normalizes citation behavior for differences in size, field and publication-type



"I want to explore the various scenarios I'm considering to set up a centre of excellence. How can the data provide me with insights?"



Benchmarking

2007 to 2011 | no subject area filter selected

ASJC

Data sources

Chart | Table

+ Add to Reporting | Export

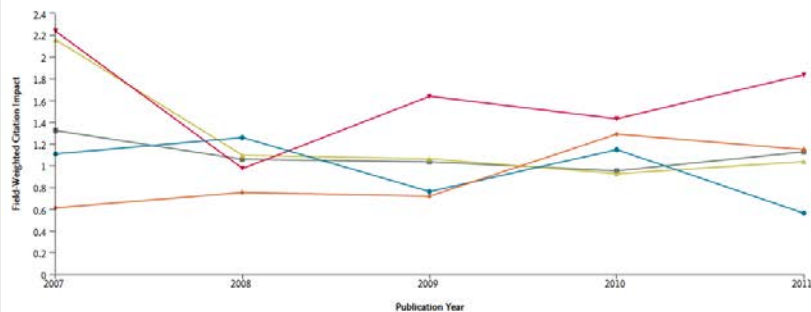
y-axis

Field-Weighted Citation Impact

x-axis

Publication Year

Bubble size



Researchers and Groups

- Limerick Biomedical Engineering
- Manchester Gene Reg and Cell Biotech
- QUB Aerospace and Manufacturing
- RCUJ Pharmacy
- UCL Chemistry

View list of Scopus Sources for the selected Researchers and Groups

Metrics details

y-axis: Field-Weighted Citation Impact

Types of publications included: all. Self-citations included: yes.

x-axis: Publication Year

Test scenario by creating virtual teams and compare using multiple metrics

“My VC is going to China; who do our academics collaborate with there and how can we expand?”



Collaboration by the Massachusetts Institute of Technology

United States | More details on this Institution

2013 to 2017 | no subject area filter selected

ASJC

Data

Current collaboration | Potential collaboration

Institutions collaborating with the Massachusetts Institute of Technology

Worldwide

All sectors

All author numbers

4,242 collaborating institutions

33,545 co-authored publications

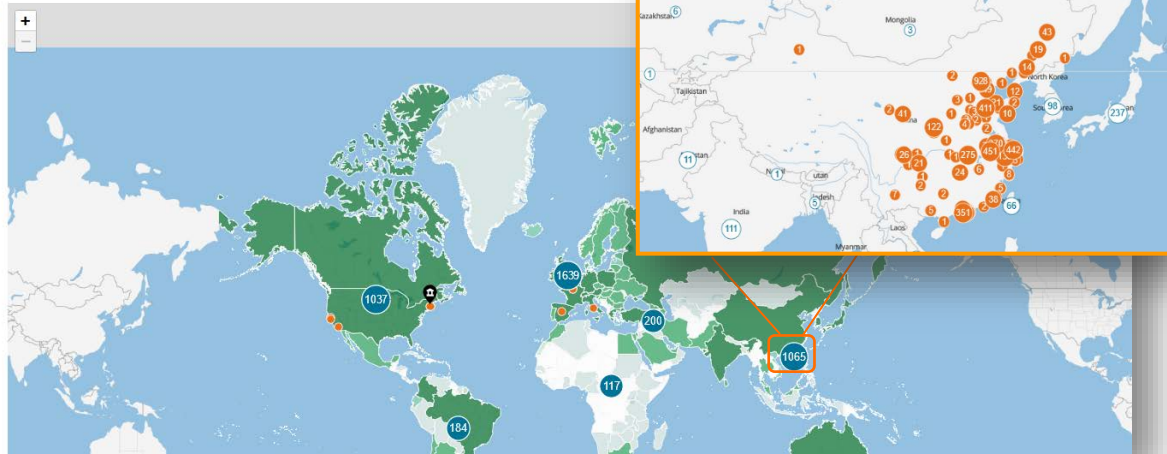
Map | Table

Export | Shortcuts | Find institution

Co-authored publications per country/region:

Top 10 Institutions worldwide by co-authored publications

0 1-50 51-250 251-1,000 >1,000



Drill into the map to identify your collaboration partners in China

Identify existing and potential collaboration partners

Collaboration by the Massachusetts Institute of Technology

United States | [More details on this Institution](#)

2015 to 2017 | no subject area filter selected | ASJC | [Data sources](#)

[Current collaboration](#) | [Potential collaboration](#)

Institutions collaborating with the Massachusetts Institute of Technology

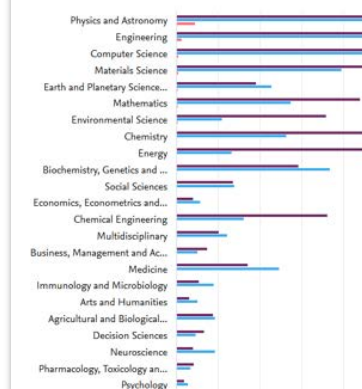
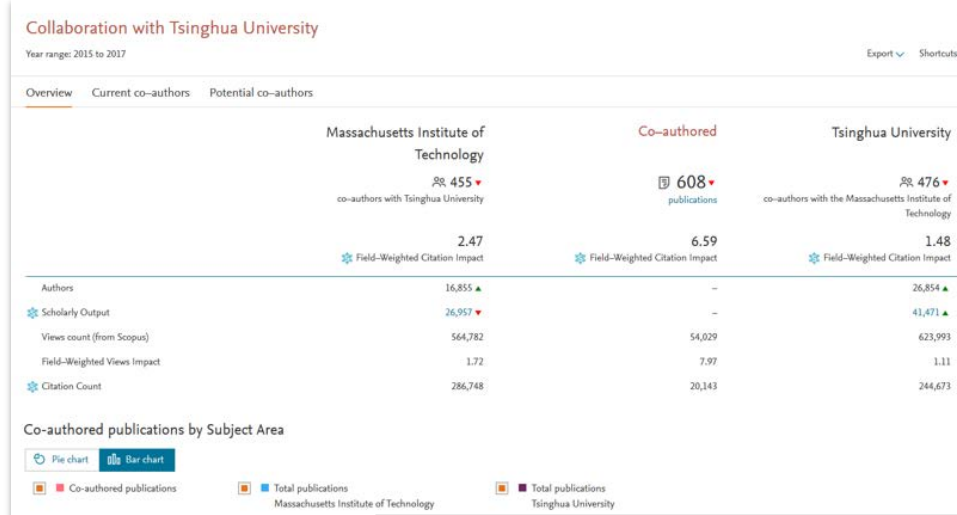
Asia Pacific | China | All authors | All sectors | reset filter

290 collaborating institutions | 2,261 co-authored publications

Map | Table | [Export](#) | [Shortcuts](#) | [Find institution](#) |

Institution	Co-authored publications ↓	Co-authors at the Massachusetts Institute of Technology	Co-authors at the other institution	Field-Weigh... ↓	Field-Weigh... ↓
Tsinghua University	608 ▼	455 ▼	476 ▼	6.59	7.97
Chinese Academy of Sciences	553 ▼	519 ▲	815 ▲	4.47	7.23
CAS - Institute of High Energy Physics	489 ▼	236 ▲	323 ▲	4.12	13.70
Peking University	421 ▲	251 ▲	241 ▲	4.37	12.59
Shanghai Jiao Tong University	268 ▼	249 ▼	227 ▼	5.60	9.98
University of Science and Technology of China	234 ▼	186 ▼	203 ▼	5.55	10.77
Shandong University	206 ▼	138 ▼	161 ▼	6.02	11.89
Central China Normal University	198	49 ▼	32 ▼	4.60	8.72
Nanjing University	193 ▼	151 ▼	136 ▼	6.52	13.04

Assess the activity level and identify researchers



Collaboration with Tsinghua University

Year range: 2015 to 2017

Export Shortcuts

Overview Current co-authors Potential co-authors

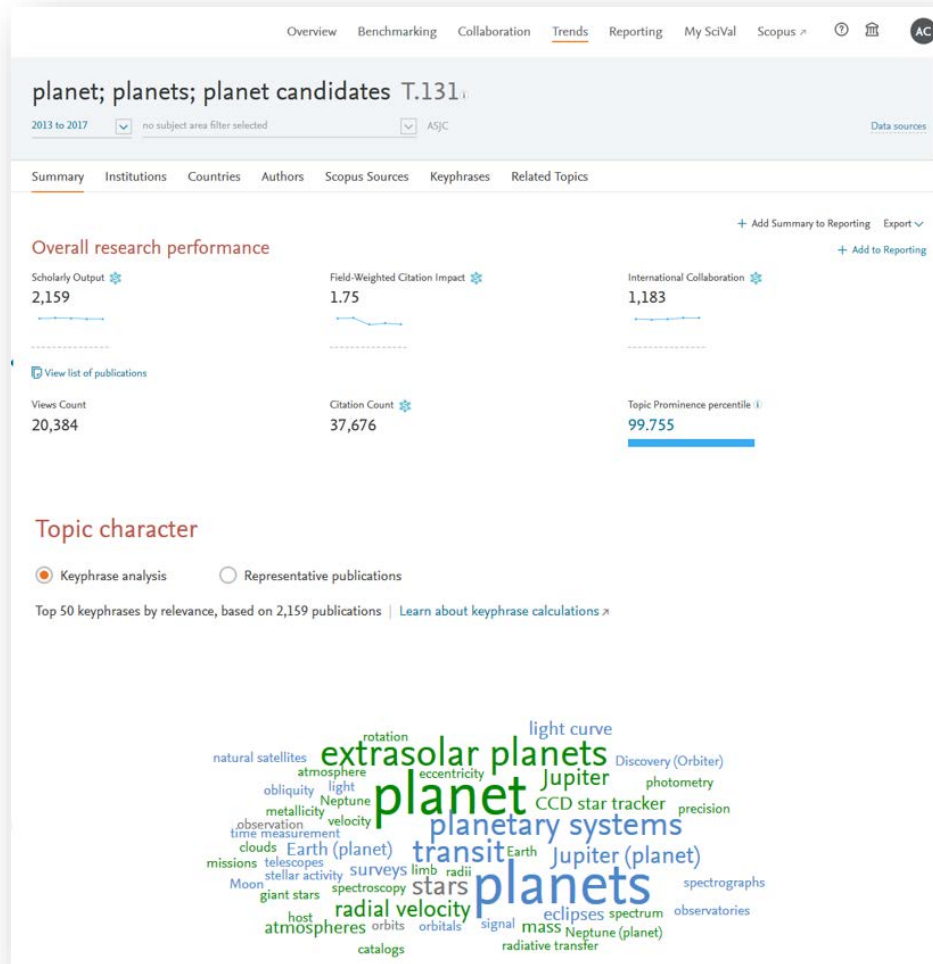
Add to panel

Massachusetts Institute of Technology			Tsinghua University		
Co-authors with Tsinghua University			Co-authors with the Massachusetts Institute of Technology		
Author	Co-authored publications	Citations	Author	Co-authored publications	Citations
> Iken, Phillip H.	180	2,745	> Gao, Y. S.	179	2,595
> Williams, Michael P.	150	2,081	> Yang, Zhewei	178	2,595
> Taylor, Frank E.	129	3,946	> Zhang, Lixing M.	170	2,214
> Boettcher, Tom	82	593	> Ai, Liqun	140	2,436
> Aggarwal, Nany	62	7,846	> Liu, Xiao Hai	139	1,784
> Barotti, Lisa	62	7,846	> Chen, X.	132	4,283
> Donovan, Fred	62	7,846	> Zhong, Liang	98	2,152
> Essick, Reed C.	62	7,846	> Zhang, Yanqi	95	1,957
> Evans, Matthew A.	62	7,846	> Zhu, Xiangfei	83	634
> Fritschel, Peter K.	62	7,846	> Jing, F. F.	72	1,819
> Gras, Slawomir	62	7,846	> Jiang, F.	66	432
> Katsavounidis, Erotokritos	62	7,846	> Guo, Xiangyu	60	7,696
> MacInnis, Myron	62	7,846	> Cao, J.	60	7,624
> Mason, Kun	62	7,846	> Sun, Yifeng	64	7,771

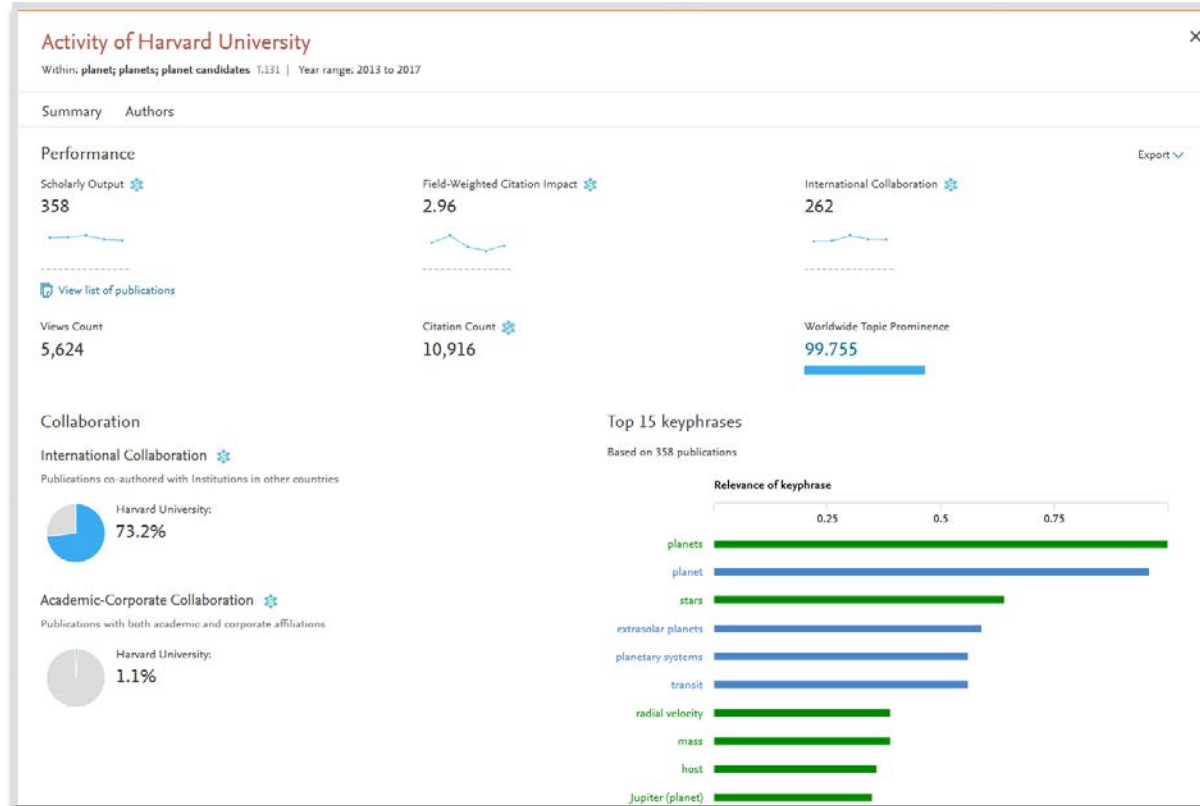
“How can I see who’s excelling in a specific subject compared to my researchers, for potential collaboration opportunities?”



Choose or create your own Research Area in SciVal



Analyze all or a specific part of the Research Area



Choose a specific key phrase within the Research Area, then view the performance of the top institutions, countries, authors and journals and compare them to your institution for potential synergies

Research Metrics





Research metrics can be used to...



Analyze the strengths of research at the institution



Determine where research is a good potential investment



Demonstrate Return on Investment of research money



Identify rising stars amongst the early career researchers



Tell a better narrative about everything that is happening with research

Two Golden Rules for using research metrics

Always use both qualitative and quantitative input into your decisions

Benefit from the strengths of both approaches. Don't replace one with the other

Combining both approaches = **closer to the whole story**

Valuable intelligence comes when these approaches **show different messages**


Always use more than one research metric as the quantitative input



One metric's strengths can **complement** the weaknesses of others


There are many different ways of being excellent



Using multiple metrics drives desirable changes in behaviour (harder to game)


Metrics available in SciVal by metric theme









Published 


-  Scholarly Output
 - Subject Area Count
 - Scopus Source Title Count
-  h-indices





Economic Impact 


-  Academic-Corporate Collaboration
-  Academic-Corporate Collaboration Impact
- Citing-Patents Count
- Patent-Cited Scholarly Output
- Patent-Citations Count
- Patent-Citations per Scholarly Output

Cited 


-  Citation Count
-  Field-Weighted Citation Impact
-  Outputs in Top Citation Percentiles
 - Publications in Journal Quartiles
-  Publications in Top Journal Percentiles
-  Citations per Publication
- Cited Publications
-  h-indices
- Number of Citing Countries
-  Collaboration Impact
-  Academic-Corporate Collaboration Impact
- Citing-Patents Count
- Patent-Cited Scholarly Output
- Patent-Citations Count
- Patent-Citations per Scholarly Output


Collaboration 


-  Collaboration
-  Collaboration Impact
-  Academic-Corporate Collaboration
-  Academic-Corporate Collaboration Impact


Viewed 

- Views Count
- Outputs in Top Views Percentiles
- Views per Publication
- Field-Weighted Views Impact

Societal Impact 

-  Mass Media
 - Media Exposure
 - Field-Weighted Mass Media

Awarded Grants 

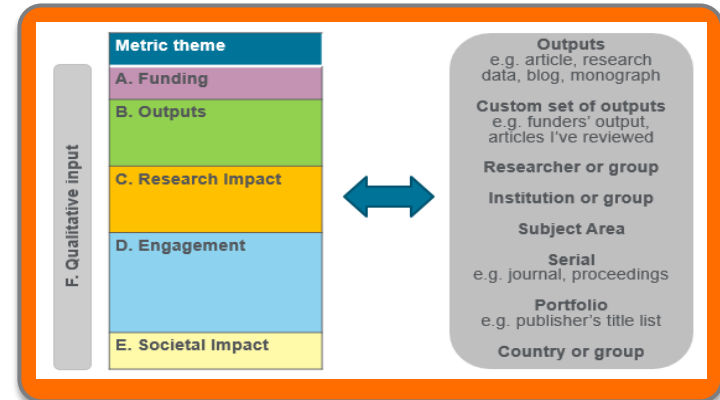
-  Awards Volume

Publication Year



How should the array of metrics be used?

1. Define the question clearly, so that you can
2. Select appropriate metrics for the particular situation, and
3. Calculate metrics for the entities you are investigating, and
4. For suitable peers so you can benchmark performance



Research Metrics Guidebook

This comprehensive metrics guidebook is intended to be a straightforward, practical companion for you to find the right metrics to meet your objectives.

- **Understanding metrics**
 - Scopus as data source
- **Selection of appropriate metrics**
 - What affects their values, besides performance?
- **For each metric**
 - Situations in which they are useful
 - When to take care and how to address short-comings
 - Worked examples

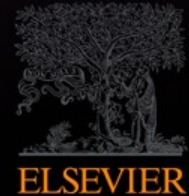


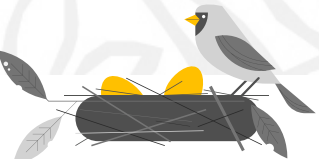
Let's see it live in SciVal ...



Q&A session

Empowering
Knowledge™





Upskill your research!



Elsevier Online
Training Hub

<http://bit.do/TrainingHub>

Virtual
Pan-European User Conference SciVal & Scopus
18 - 20 May 2021
#peuc2021





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Research Intelligence

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