

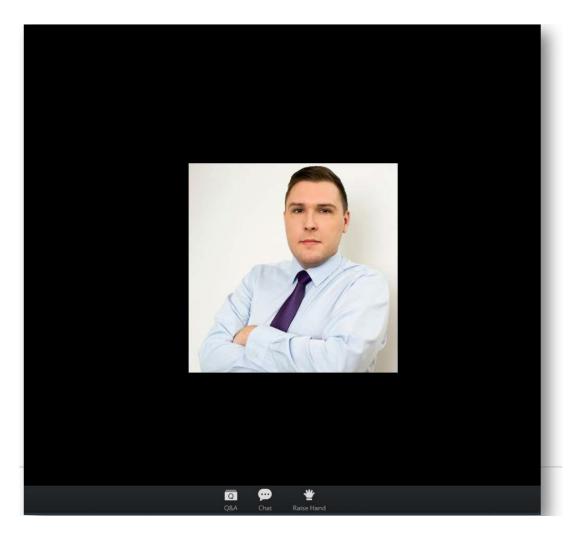
# SciVal intro and data sources

SciVal Advisor Program Autumn 2020 edition, session 1

9<sup>th</sup> November 2020

Kate Patyrak, Bartlomiej Wieckowski







Zoom Group Chat Q&A × Welcome 🚫 Feel free to ask the host and panelists questions Type your question here... To: All panelists and attendees Type message here ... Q ø \*







# SciVal intro and data sources

### SciVal Advisor Program Autumn 2020 edition, session 1

9<sup>th</sup> November 2020 Kate Patyrak, Bartlomiej Wieckowski



# Today's agenda

- Let's get to know each other!
- Introduction to SciVal Advisor program autumn 2020
- SciVal how to start with it?
- Why it is a useful tool?
- The practical point of view use cases
- Metrics how to work with it?
- Summary and Q&A



## Welcome!



Kate Patyrak



### Bartek Wieckowski



## SciVal advisor program autumn 2020 edition

- Participate at least at 4 live webinars
- Complete an online assessment test:
  - Till 31st December 2020,
  - Get minimum 50% of points.



## Why research metrics can be important





## SciVal's key differentiators

### SciVal's key differentiators

1. Unparalleled power and flexibility with an intuitive interface

2. Based on the largest, curated databases in the world, Scopus  $\ensuremath{\mathbb{R}}$ 

3. Access to the research performance of thousands of global research institutions and their associated researchers

4. Access to an array of simple and more sophisticated metrics allowing the creation of uniquely tailored analyses and analytical reports

5. Analysis and scenario modeling for any researcher or group in the world, based on <u>full</u> publication history (thanks to our Scopus Author Profiles!)



## SciVal today

- Global market leader with more than 1,300
   customers, across 80 countries.
   Predominantly academic institutions.
- Very strong presence in Australia, UK,
   Japan, China and Russia
- Corporate customers include: Siemens, Boeing
- Several funding organizations and national government bodies





### SciVal in a nutshell

SciVal provides access to the research performance of over 18,500 research institutions and their associated researchers from more than 230 nations worldwide



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





Flexibility to create and compare any research groups





Develop collaborative partnerships

Identify and analyze existing and potential collaboration opportunities

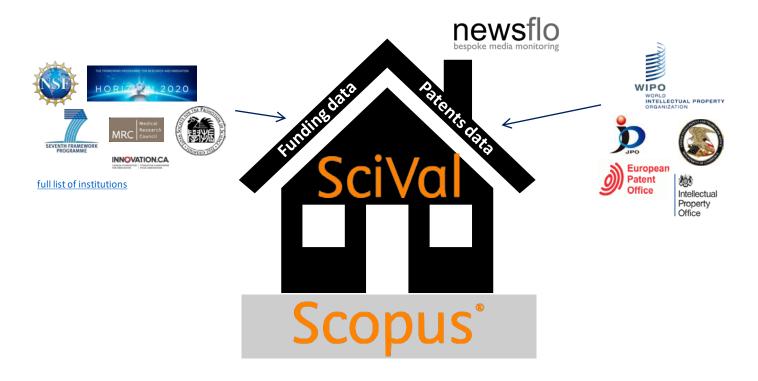




planet; planets; planet candidates T.131

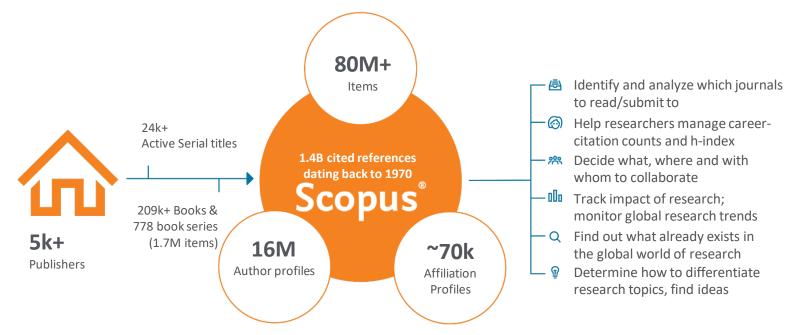
Analyze research trends to discover the top performers and rising stars

# Which Data Sources Feed Into SciVal?



### Scopus: the main data source for SciVal

**Scopus** is one of the largest curated abstract and citation databases of peer-reviewed literature, and features smart tools that allow you to track, analyze and visualize scholarly research.



### Supercomputing technology

Calculate over 300 trillion metric values per week

### Select metrics

Supercomputing technology



Supercomputing technology



### Create and select research entities

Select metrics

Supercomputing technology

## Benefits for a broad range of users

SciVal supports the needs of a broad range of institutional users by providing readymade, at-a-glance snapshots for flexible, institution-specific insight

	Vice-Rector for Research	<ul> <li>Comprehensive Performance Overview to inform strategic planning</li> <li>Identify institution's strengths and short-comings</li> </ul>
<b>G</b> E	Research Office	<ul> <li>Create management-level reports</li> <li>Accelerate institutional and cross-institutional collaboration</li> <li>Support and win large grants</li> </ul>
$\checkmark$	Heads of Department	<ul> <li>Evaluate researcher and team performance for partnership planning, recruitment and retention decisions</li> <li>Scenario modelling through creating virtual teams</li> </ul>
	Faculty and Researchers	<ul> <li>Raise visibility and highlight expertise and achievements</li> <li>Expand networks</li> <li>Locate and evaluate potential collaborators and mentors</li> </ul>

## 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 India; 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?"

View the disciplinary focus of your institutions and your top researchers

Sc/Val							
Protections and Groups	×	Charles University 🖈				Report from Samplela	
B Owle University		Cil - Università Karlesa 🗒 260% (QS x) - 402.500 (THE x) - 202.500 (MINU x) 🛌 Cault Repu	Mar the static sector sector sector				
O B University of Harma		207 to 2020 (V) All adjustments	W ALC			Data sources	
Olupyn							
		Summary Topics R Topic Durters Collaboration Publici	ned Vewed Cred Authors EconomicImpact Social Impact	Awanded Grants			
					+ Add Summary to R		
		Overall research performance	S			+ service Receiving	
		23,304 A	12,791 ▲	1.35 Feet/Negred Option in			
		Several algorithms	dutture.	Patricipal Clarin M	Net D		
			1.00	1.202			
		152,452 Galer Caret @	6.5 Continue per Publication (C)	142 Mindex @			
		( cancer o	Canada and	0.000			
		Publications by Subject Area				+ ALC IN RECEIVING	
		Ourst Own					
				purar Science (3.436)			
			Muhidanipleney (1.2%) Sanal Georges (1.2%)	Platternation (4.236) Physics and Achieve my (9.036)			
			Arts and Harrantian (3.020)	Overnatry (3.5%)			
			Planneckey, Torcology and Planneeutin (23%)	Haterale Science (4.2%)			
				Engineering (1.8%)			
+ MI withdow welling			Mactions (2) 844				
+ Add institutions and Group & Chair Also matter				Engineering (1.0%) Environmental Science (2.0%)			
	Sum Au Tre S		Published Viewed Cited Authors Economic Impl	Engineering (1.236) Environmental Sciences (2.236) Earth and Panneery Sciences (1.336)		+ Add	to Reporting Export v
	Sum Au Top S Note	mary Topics & Topic Clusters Collaboration P <b>thors</b>	Published Viewed Cited Authors Economic Impl	Engineering (1.236) Environmental Sciences (2.236) Earth and Panneery Sciences (1.336)		+ 44	to Reporting Export v
	Sum Au Top S Note	mary Topics & Topic Clusters Collaboration P thors 35 unions, by Schularly Outgot at Charles University avan the p thet some authors may no longer be afficient with Charles Univ	Published Viewed Cited Authors Economic Impl	Engineering (1.236) Environmental Sciences (2.236) Earth and Panneery Sciences (1.336)	Mart result publication	+ Add Citations	to Reporting Export v
	Sum Au Top 5 None	many Topics & Topic Clusters Collaboration P thors 30 Julians, by Schularly Output at Charles University area the p that same achieve may no longer be afficient who Charles Univ dit to planel	Published Viewed Cited Authors Economic Impl	Environment (1984) Environment (1984) Environment (1984) Environment (1984) Environment Anwerded Grants			
	Sum Au Top S Note	many Topics & Topic Clusters Collaboration P thors thorse that same achieve may as larger to differed who can the p that same achieve may as larger to differed who Coules Uni- that same achieve may as larger to differed who Coules Uni- did to panel	Published Viewed Cited Authors Economic Impl	Expressed (196) Expressed (196) Exother & Provey Science (197) Exother & Provey Science (197) Exother Provey Science (197) Scholarly Output 🔹	publication	Giatians	hinder
	Sum Au Tup S Note III - 1 2	many Topics & Topic Ousters Collaboration P thors 80 sultans, by Shallarly Ouspet at Charles University area than p that same a subset may no langer for JME stand with Charles Univ all to planel	Published Viewed Cited Authors Economic Impl	Envering (18) Envering (18) Envering (18) Envering (18) Societal Impact Awarded Grants Solution (19) Scholarly Output @	publication 2020	Gitations 🔽 10,537	hinder 116
	Sum Tup 5 Note Elin 4	many Topics & Topic Clusters Collaboration P thors 80 outlens, by Schularly Oraget in Charles University over the p the same authent may no hinger for all Stand with Charles Univ did to panel. 35 Standardseck in main detail Tanget, Mar Charget, Mar	Published Viewed Cited Authors Economic Impl	Solution (CAR)	publication 2020 2020	Citations 🔽 10,537 10,817	hindes 126 111
	Sum Tap 5 Note L. 2. 3.	many Topics & Topic Custers Collaboration P thors Studiens, by Scholarly Corpus is Charles University and the fast some activity on large to allfitted with Charles Unit different with Charles University 1 Name 1 Name	Published Viewed Cited Authors Economic Impl	Solvelarly Output & Solverand Primery Streamer, Stre Solvelarly Output & Solvelarly Output & 177 485 455	publication 2020 2030 2030	Citations v 10,537 10,117 10,273	Ninder 116 111 114
	Sum Aut Top 5 Note L 2. 3. 4. 5.	many Topics & Topic Ousters Collaboration A thors 80 sultans, by Stahlarly Ouspet at Charles University over the p the same authors may no langue be affittered with University and to panel 39 Standards in many data? Frager, Mir Frager, Mir Frage	Published Viewed Cited Authors Economic Impl	Exhapseneg (188) Exhansel 298 Exhansel 298	publication 2020 2020 2020 2020 2020 2020	Citations v 20,337 10,817 10,275 8,444 9,887	hindes 126 131 134 58 132
	Sum Au' Trep 5 Note 1 1 2 3 3 4 4 5 6	many Topics & Topic Ousters Collaboration P thors 80 subtrom, by Scholarly Outget at Charles University even the p the same subtrom you to larger for URE stand with Charles Univ and to parent ">> Standbords Context University even the p Topics & Standbords Context University of the University Target, Mor Context, Context Context, Context, Conte	Published Viewed Cited Authors Economic Impl	Sobalary Output  Sobalary Output Sobalary Output Sobalary Output Sobalary Output	publication 2020 2020 2020 2020 2020 2020	Citations 10,317 10,817 10,817 10,817 10,817 1,844 4,887 9,485	hinder 126 131 134 58 132 58
	Sum Au Top 5 Norm I. 2. 1. 2. 3. 4. 5. 6. 7.	many Topics & Topic Clusters Collaboration P thors 80 outlons, by Scholarly Oragos in Charles University over the p the same authors with heigh 14 all Rised with Charles Univ date to panel. 32 Scholarobrack in mean deal Rised. Rised. Rised. Rised. Rised. Rised. Charles Contact Contact Contact Contact Contact Rised. Rised. Contact C	Published Viewed Cited Authors Economic Impl	Solution Control Contr	publication 2020 2020 2020 2020 2020 2020 2020 20	Ctariaw v 10,537 10,817 10,275 8,444 9,887 8,485 9,785	hindes 120 121 124 58 132 58 58 132
	Sum Au' Trop 5 Notes 1. 2. 3. 4. 5. 6. 7. 8.	Topics & Topic Custers Collaboration P thors Studies, b thorses Studies, b thorses Studies, b thereas a cheves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic toic toic toic toic toic toic toic toic	Published Viewed Cited Authors Economic Impl	Solution Control Contr	publication 2020 2030 2030 2020 2020 2020 2020 202	Ctations v 20,337 10,117 10,275 <b>E,444</b> 4,885 8,935 8,935 8,935 8,935	hinder 326 331 334 34 35 35 35 30 207 307
	Sum Au' Trop 5 Notes I. 2. 3. 4. 5. 6. 7. 8. 8. 9.	many Topics & Topic Ousters Collaboration A thors 80 subme, 5 50 subme, 5 50 subme, 5 50 subme, 5 51 subme 11 sume 12 subme 13 subme 14 super Mir 15 super 14 super 15 super	Published Viewed Cited Authors Economic Impl	Shalah Output Soversel Press, Stewards Bit Soversel Press, Stewards Bit Soversel Press, Stewards Bit Schulzer, Output 54 54 55 55 55 55 55 55 55 55	publication 2020 2020 2020 2020 2020 2020 2020 20	Ctariaw v 10,537 10,817 10,275 8,444 9,887 8,485 9,785	himdes 126 131 134 38 132 38 132 39 137 307 37
	Sum Au' Trop 5 Notes I. 2. 3. 4. 5. 6. 7. 8. 8. 9.	Topics & Topic Custers Collaboration P thors Studies, b thorses Studies, b thorses Studies, b thereas a cheves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic that some achieves may no longer to elificated with Confect toic toic toic toic toic toic toic toic toic	Published Viewed Cited Authors Economic Impl	Solution Control Contr	publication 2020 2030 2030 2020 2020 2020 2020 202	Ctations v 20,337 10,117 10,275 <b>E,444</b> 4,885 8,935 8,935 8,935 8,935	hinder 326 331 334 34 35 35 35 30 207 307
	Sum Au Tup 5 Notes Bis 4 1 2 3 4 4 3 4 4 3 9 4 3 9 4 10 10	many Topics & Topic Ousters Collaboration A thors 80 subme, 5 50 subme, 5 50 subme, 5 50 subme, 5 51 subme 11 sume 12 subme 13 subme 14 super Mir 15 super 14 super 15 super	Published Viewed Cited Authors Economic Impl	Shalah Output Soversel Press, Stewards Bit Soversel Press, Stewards Bit Soversel Press, Stewards Bit Schulzer, Output 54 54 55 55 55 55 55 55 55 55	publication 2020 2030 2030 2030 2030 2030 2030 203	Citations v 10,337 10,847 10,275 4,444 9,847 9,435 9,235 9,244 9,559	himdes 126 131 134 38 132 38 132 39 137 307 37
	Sum Au Tup 5 Notes Notes 1 1 2 3 4 3 6 6 7, 3 8 9 10 11	many Topics & Topic Ousters Collaboration P thors 80 subars, 5 50 subars, 5 10 sub	Published Viewed Cited Authors Economic Impl	Shalah Outure Society Press, Stanuer, Star Society Press, Stanuer, Star Society Press, Stanuer, Star Society Press, Star Star Shalah Outure 454 455 455 456 457 453 455 455 455 455 455	publication 2020 2030 2020 2020 2020 2020 2020 202	Claties v 10,337 10,337 10,275 8,454 9,785 9,785 9,745 9,745 9,559 9,529	kindes 116 151 152 58 152 58 157 157 157
	Sum Au Top Sum None E L 2. 3. 4. 7. 8. 8. 9. 9. 10. 11. 12.	Topics & Topic Ousters Collaboration P  thors  Southen, by Solution Ouspet at Charles University even the p  that some authent on hings the all Risard with Charles Univ  that areas authent on hings the fall Risard with Charles Universe authent on hings the fall Risard with Charles Universe authent on hings the fall Risard with Charles Universe authent on hings the fall Risard with Charles Universe authent on hings the fall Risard with Charles Universe authent on hin	Published Viewed Cited Authors Economic Impl	Sobelah Outure Control	publication 2020 2020 2020 2020 2020 2020 2020 20	Citatiew         v           10,837         10,837           10,817         10,273           8,484         8,484           8,485         8,385           8,786         8,284           8,329         8,329	kinder 136 131 132 38 132 38 38 132 38 307 307 306 306 306 306

6

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

5.000

4,000

3.000

2 000 1 000

40%

3590 30%

25% 20%

15% 10% 5% 0%

60%

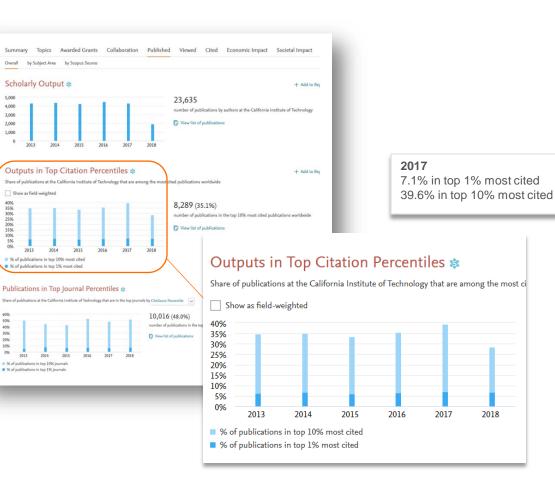
50%

40%

2094

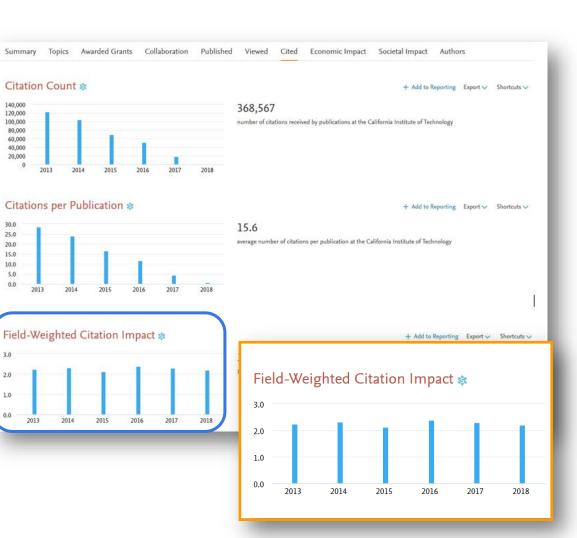
0%

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

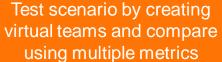


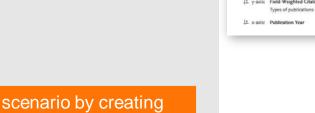
Look through different metrics to identify ones that demonstrates your institution's research excellence

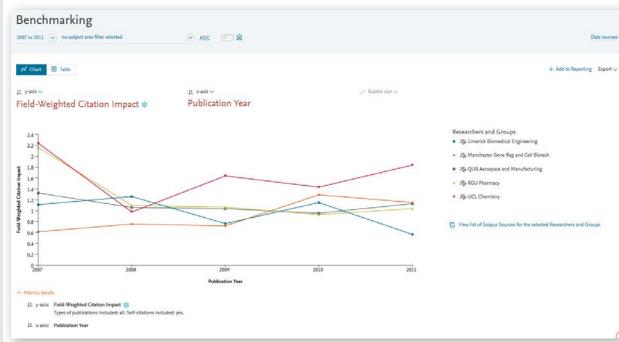
View Field-Weighted Citation Impact that normalizes citation behavior for differences in size, field and publication-type



"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?"



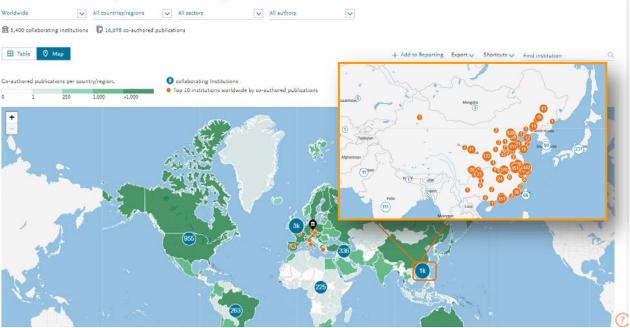




"My VC is going to China; who do our academics collaborate with there and how can we expand?"

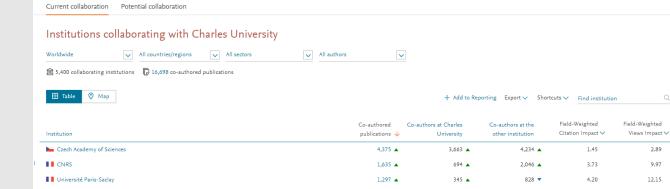


### Institutions collaborating with Charles University



Drill into the map to identity your collaboration partners in China

# Identify existing and potential collaboration partners



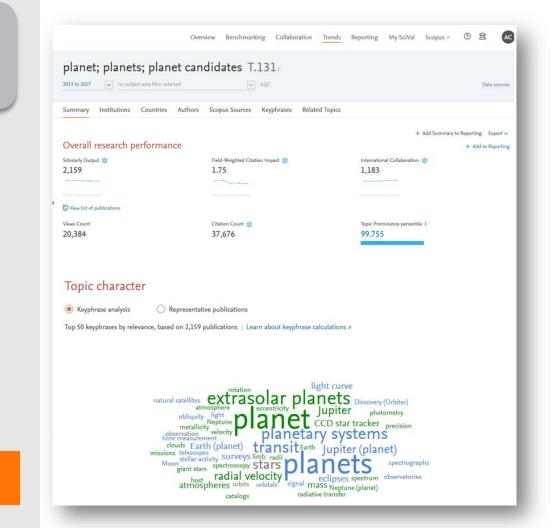
	Institution	publications 🗸	University	other institution	Citation Impact V	Views Impact 🗸
	Czech Academy of Sciences	4,375 🔺	3,663 🔺	4,234 🔺	1.45	2.89
I.		1,635 🔺	694 🔺	2,046 🔺	3.73	9.97
	Université Paris-Saclay	1,297 🔺	345 🔺	828 🔻	4.20	12.15
	Czech Technical University in Prague	1,176 🔺	948 🔺	714 🔺	1.87	5.98
	🛌 Masaryk University	1,125 🔺	1,701 🔺	1,241 🔺	1.03	1.87
	SIC CSIC	1,109 🔺	364 🔺	667 🔺	4.11	13.20
	National Institute for Nuclear Physics	1,079 🔻	137 🔻	2,261 🔻	3.50	13.54
	National and Kapodistrian University of Athens	1,039 🔺	254 🔺	257 🔺	4.21	13.83
	University of Bologna	1,024 🔺	266 🔺	325 🔺	4.46	14.38
	🚾 Universidad Autónoma de Madrid	1,004 🔺	256 🔺	231 🔺	4.71	14.81
	CEA	993 🔻	179 🔻	357 🔻	3.97	14.28
	University of Rome La Sapienza	992	267	384 🔻	4.19	14.49
	Institut national de physique nucléaire et de physique des particules	990 🔺	102 🔺	1,099 🔻	3.73	14.57

### Assess the activity level and identify researchers

ar range: 2015 to 2017				Export 🗸 Shortcuts 🗸			
verview Current co-authors Potential	co-authors						
	Massachusetts Institute of Technology	Co-authored		Tsinghua University			
	옷, 455 ▾ co-authors with Tsinghua University	608     publications	co-author	≈ 476 • s with the Massachusetts Institute of Technology			
	2.47	6.59 Sield-Weighted Citation Impact		1.48 St Field-Weighted Citation Impact			
Authors	16,855 🛦			26,854 ▲			
Scholarly Output	26,957 -	-		41,471 🔺			
Views count (from Scopus)	564,782	54,029		623,993			
Field-Weighted Views Impact	1.72	7.97		1.11			
Citation Count	286,748	20,143		244,673			
authored publications by Subject Pie chart DB Bar chart	ingeneration of the second						
Co-authored publications	Total publications     Massachusetts Institute of Technology	Total publications Tsinghua University					
Physics and Astronomy Engineering Computer Science		Tsinghua University				Export	/ Shi
Physics and Astronomy Engineering Computer Science Materials Science Earth and Planetary Science	Massachusetts Institute of Technology Collaboration with	Tsinghua University Fsinghua University				Export 🗸	/ Sh
Physics and Astronomy Engineering Computer Science Materials Science	Massachusetts Institute of Technology Collaboration with Year range 2015 to 2017	Tsinghua University Fsinghua University				Export 🗸	<ul> <li>She</li> </ul>
Physics and Astronomy Engineering Computer Science Materials Science Earth and Planetary Science Mathematics Environmental Science Chemistry Energy	Massachusetts Institute of Technology Collaboration with Year range 2015 to 2017 Overview Current co-auth	Tsinghua University  Isinghua University  ors Potential co-authors  of Technology		Tsinghua University Co suthers with the Masachusetts Institute of T	Technology	Export 🗸	∕ Shi
Physics and Astronomy Engineering Computer Science Materials Science and Planetary Science. Building Science Environmental Science Environmental Science Energy Energy Sciences and Social Sciences	Massachusetts Institute of Technology Collaboration with Year range 2015 to 2017 Overview Current co-auth Collaboration Massachusetts Institute of Massachusetts Institute of	Tsinghua University  Isinghua University  ors Potential co-authors  of Technology	v		ferhnology Ce-authored publications	Export \	≠ Shi
Physics and Astronomy Engineering Computer Science Materials Science arth and Planetary Science. Mathematics Environmental Science Environmental Science Benergy Energy Sciences and Social Sciences	Massachusetts Institute of Technology Collaboration with 1 Year range 2015 to 2017 Overview Current co-auth Collaboration Massachusetts Institute Co authors with Tringhas University	Tsinghua University Singhua University ors Potential co-authors of Technology Co-authord	2,745	Co-authors with the Massachusetts Institute of T	Co-authored		≠ Shi
Physics and Astronomy Engineering Computer Science Materials Science anth and Planetary Science Mathematics Environmental Science Otemistry Energy Energy iochemistry, Genetics and Social Sciences nomics, Econometrics and. Chemical Engineering Multidisciplinary	Massachusetts Institute of Technology Collaboration with 1 Year range 2015 to 2017 Overview Current co-auth Collaboration with Technology Massachusetts Institute of Co authors with Teinghaa University Author	Tsinghua University Isinghua University ors Potential co-authors of Technology Co-authored publications Classions		Co-authors with the Massachusetts Institute of T Author	Co-authored publications		× Shu
Physics and Astronomy Engineering Computer Science Materials Science anth and Planetary Science Mathematics Environmental Science Otemistry Energy Energy iochemistry, Genetics and Social Sciences nomics, Econometrics and. Chemical Engineering Multidisciplinary	Massachusetts Institute of Technology Collaboration with 1 Year range 2015 to 2017 Overview Current co-auth Co, Add to panel Massachusetts Institute of Co authors with Tanghaa University Author D > Ren, Philip H.	Tsinghua University  Singhua University  ors Potential co-authors  of Technology Co-authors  Classions  Classions  180	2,745	Co-authors with the Massachusetts Institute of T Author Gao, Y. S.	Co-authored publications		✓ Shu
Physics and Astronomy Engineering Computer Science Materials Science arth and Planetary Science. Mathematics Environmental Sciences Chemistry Energy iochemistry, Genetics and Social Sciences nomics, Econometrics and. Chemical Engineering Multidisciplinary ness, Management and Ac. Medicine munology and Microbiology	Massachusetts Institute of Technology  Collaboration with Year range 2015 to 2017 Overview Current co-auth Co, Add to panel  Autor Autor  Stans, Michael P.	Tsinghua University : Isinghua University orr Potential co-authors of Technology Co-authord Co-authord Classes 180 150 150 Classes 150 Classes 150	2,745	Co-authors with the Massachusetts Institute of T Author Go Gao, Y. S. Go Yang, Zhenwei	Co-authored publications 179 178		× Shu
Physics and Astronomy Engineering Computer Science Materials Science Antarials Science Committee Environmental Science Chemistry Generalise Chemistry Generalise Social Sciences Social Sciences Multidiscipilnary Inters, Management and Ac. Medicine munology and Microbiology Arts and Humanities	Massachusetts Institute of Technology  Collaboration with 1 Year range 2015 to 2017 Overview Current co-auth  G, Add to panel  Massachusetts Institute of Castron with Teighyta University Actor  D thum, Philip H.  S Williams, Michael P.  Typer, Frank E.	Tsinghua University  Isinghua University  rsinghua Unitersity  rsinghua Unitersity  rsinghua Unitersity  rsinghua	2,745 2,081 3,946	Co authors with the Maxachusetts Institute of T Author	Co-authored publications 179 178 170		<ul> <li>She</li> </ul>
Physics and Astronomy Engineering Computer Science Materials Science arth and Paneary Science. Mathematics Environmental Science Chemistry Genetics and Social Sciences Social Sciences Social Sciences Multidiscipilnary ness, Management and Ac. Medicine munology and Microbiology Arts and Humanities	Massachusetts Institute of Technology  Collaboration with 1 Ver range 2015 to 2017  Overview Current co-auth  Add to panel  Massachusetts Institute of Co authors with Taiphose University  Author  Difference, Nickael P.  Difference, Yachaer P.  Di	Tsinghua University  Isinghua University  rs Potential co-authors  of Technology  Co-authora  Caracteria  Caracter	2,745 2,081 3,946 593	Co authors with the Massachusetts Institute of T Author	Co-authored publications 179 178 170 140		× Shu
Physics and Astronomy Engineering Computer Science Materials Science. Antarials Science. Mathematics Environmental Science Commistry Genetics and Social Sciences Chemister Jengineering Multidiscipilinary nets, Management and Ac. Chemical Engineering Multidiscipilinary Multidiscipilinary Arts and Humanities Agricultural and Biological. Decision Sciences Neuroscience	Massachusetts Institute of Technology  Collaboration with 1 Year range 2015 to 2017  Overview Current co-auth  Massachusetts Institute Co authors with Tainghea University Author  Author  State, Philip H, State,	Tsinghua University : Singhua University ors Potential co-authors  of Technology  Co-authors  Co-auth	2,745 2,081 3,946 593 7,846	Co authorn with the Massachusetts Institute of T Author > San, Y. S. > Yang, Zhenwei > Zhang, Liming M. > An, Liopen > Liu, Xlao Hai	Co-authored publications 179 178 170 140 139		× Shu
Physics and Astronomy Engineering Computer Science Materials Science Materials Science Environmental Science Environmental Science Environmental Science Commistry Genetics and Social Sciences Commister Genering Multidisciplinary Multidisciplinary Multidisciplinary Multidisciplinary Multidisciplinary Multidisciplinary Arts and Humanities Agricultural and Biological. Decision Sciences Neuroscience	Massachusetts Institute of Technology  Collaboration with 1 Year range 2015 to 2017  Overview Current co-auth  Co. authors with hinghas University  Author  Au	Tsinghua University : Singhua University ors Potential co-authors  of Technology  Co-authors  Co-authors  Co-authors  Co-authors  Caterers  Cater	2,745 2,081 3,946 593 7,846 7,846	Co authors with the Maxachusetts Institute of T Author  Communication  Author  Same, Y. S.  Same, Tang, Zhanweii  Zhang, Linning M.  Same, Lingun  Lingun  Same, X.	Co-authored publications 179 178 170 140 139 132		× She
Physics and Astronomy Engineering Computer Science Materials Science and and Planetary Science Brwironmental Science Chemistry Energy iochemistry, Genetics and Social Sciences nomics, Econometrics and. Chemical Engineering Multidisciplinary Multi	Massachusetts Institute of Technology  Collaboration with 1 Year range 2015 to 2017 Overview Current co-auth  Og, Add to pand  Massachusetts Institute of Cauthors with Tainghas University  Author  Author  Stans, Nichael P. Stans, Pailip H. Stans, Michael P. Stans, Autore for a standard, tai Stans, Include C. Stanstol, tai D Denovan, Fred	Tsinghua University : Isinghua University : orr Potential co-authors · of Technology Co-authord Clasters · Co-authord Clasters · 180 · 1	2,745 2,081 3,946 593 7,846 7,846 7,846	Co authors with the Massachusetts Institute of T Author > Xang, Y. S. > Yang, Zhenweii > Zhang, Linning M. > Any, Liopan > Liu, Xao Mai > Chen, X. > Zhang, Linng	Co-authored publications 179 178 170 140 139 132 98		× Shu
Physics and Astronomy Engineering Computer Science Materials Science Earth and Planetry Science Environmental Science Chemistry Energy Biochemistry, Genetics and Social Sciences noomics, Econometrics and. Chemical Engineering Multidisciplinary Medicine Interview and Medicine Interview and Medicine Medicine Medicine Interview and Medicine Medicine Interview and Medicine Interview and Medicine Medicine Interview and Medicine Medic	Massachusetts Institute of Technology  Collaboration with 1 Year range 2015 to 2017  Overview Current co-auth  Counter Summary  Author  Author  Sites, Prilip H.  Sites, Prilip H.  Sites, Prilip H.  Author	Tsinghua University : Isinghua University  or Potential co-authors  of Technology  Co-authore  Co-aut	2,745 2,081 3,946 593 7,846 7,846 7,846 7,846	Co authors with the Massachusetts Institute of T Author	Co-authored publications 179 178 170 140 139 132 98 95		× She
Physics and Astronomy Engineering Computer Science Materials Science Earth and Planetry Science Environmental Science Chemistry Energy Biochemistry, Genetics and Social Sciences noomics, Econometrics and. Chemical Engineering Multidisciplinary Medicine Interview and Medicine Interview and Medicine Medicine Medicine Interview and Medicine Medicine Interview and Medicine Interview and Medicine Medicine Interview and Medicine Medic	Massachusetts Institute of Technology  Collaboration with 1 Year range 2015 to 2017 Overview Current co-auth  G, Add to panel  Massachusetts Institute of Coastron with Taiphoa University Actor  Stans, Ridigat P. Stans, Ridigat P	Tsinghua University : Isinghua University : or Potential co-authors of Technology Coastlando Calation Calatio	2,745 2,081 3,946 593 7,846 7,846 7,846 7,846 7,846	Co-suthers with the Massachusetts Institute of T Author	Co-suthered publications 179 178 170 140 139 132 132 132 132 8 8 83		× Shu
Physics and Astronomy Engineering Computer Science Materials Science Earth and Planciary Science Earth and Planciary Science Chemistry Environmental Science Chemistry Energy Biochemistry, Genetics and Social Sciences Domics, Econometrics and Chemical Engineering Multidisciplinary siness, Management and Ac Medicine mmunology and Microbiology Atts and Humanitiss Agricultural and Biogical Decision Sciences Neuroscience Neuroscience Neuroscience	Massachusetts Institute of Technology  Collaboration with 1 Year range 2015 to 2017  Overview Current co-auth  Co autors with Taippus University  Autor  Autor  Stans, Nickast P.  Stans, Nickast P.  Stans, Frail, E.  Bestaber, Torn  Aggewal, Nany  Bestaber, Torn  Denovan, Fred  Denovan, Fred Denovan, Fre	Tsinghua University : Isinghua University : or Potential co-authors of Technology Caracthore Claretors Caracthore Claretors Caracthore Claretors Caracthore Claretors Caracthore Claretors Caracthore Claretors Claretors Caracthore Claretors Caracthore Claretors Cl	2,745 2,081 3,946 593 7,846 7,846 7,846 7,846 7,846 7,846	Co-suthers with the Massachusetts Institute of T Author	Considered publications 179 170 170 170 170 170 170 170 170 170 170		× Shu

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

5



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

#### Activity of Harvard University × Within: planet; planets; planet candidates T.131 | Year range: 2013 to 2017 Summary Authors Performance Export V Scholarly Output Field-Weighted Citation Impact International Collaboration 📩 2.96 262 358 ..... View list of publications Views Count Citation Count Worldwide Topic Prominence 5.624 10.916 99.755 Collaboration Top 15 keyphrases Based on 358 publications International Collaboration Publications co-authored with Institutions in other countries Relevance of keyphrase Harvard University. 0.25 0.5 0.75 73.2% planets Academic-Corporate Collaboration 🔹 etard Publications with both academic and corporate affiliations extrasolar planets Harvard University: planetary systems 1.1% transit radial velocity Jupiter (planet)

# **Research Metrics in SciVal**





## Metrics available in SciVal by metric theme

^

### Published

鎍 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

- S 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 Impact

🕸 Academic-Corporate Collaboration

🕸 Academic-Corporate Collaboration Impact

### Viewed

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

### available over 30 metrics

 $\mathbf{\wedge}$ 

### Societal Impact Mass Media Media Exposure Field-Weighted Mass Media Awarded Grants

 $\sim$ 

ゝ

#### 😂 Awards Volume

Publication Year

ELSEVIER

## Two Golden Rules for using research metrics

Always use both qualitative and quantitative input into your decisions Always use more than one research metric as the quantitative input

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** 

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)

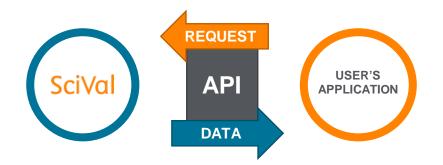
### Metrics available in SciVal in other themes

Metric theme	Metric sub-theme	Metrics in SciVal
A. Funding	Awards	Awards Volume
B. Outputs	Productivity of research outputs	<ul> <li>Scholarly Output </li> <li>Number, Type and Growth</li> <li>Subject Area Count</li> </ul>
	Visibility of communication channels	Publications in Top Journal Percentiles
C. Research Impact	Research influence	<ul> <li>Citations Count</li> <li>Field-Weighted Citation Impact</li> <li>Outputs in Top Citations Percentiles</li> <li>Citations per publication</li> <li>Cited publications</li> <li><i>h</i>-indices</li> <li>Number of citing countries</li> <li>Views Count</li> <li>Outputs in Top Views Percentiles</li> <li>Views per Publication</li> <li>Field-Weighted Views Impact</li> </ul>
	Knowledge transfer	<ul> <li>Academic-Corporate Collaboration \$</li> <li>Citing-Patents Count</li> <li>Patent-Cited Count</li> </ul>
D. Engagement	Academic network	<ul> <li>Collaboration \$\$</li> <li>Collaboration Impact \$\$</li> </ul>
	Non-academic network	<ul> <li>Academic-Corporate Collaboration <sup>\$\$</sup></li> <li>Academic-Corporate Collaboration Impact <sup>\$\$</sup></li> </ul>
	Expertise transfer	<ul> <li>Academic-Corporate Collaboration \$</li> <li>Citing-Patents Count</li> <li>Patent-Cited Count</li> </ul>
E. Societal Impact	Societal Impact	<ul> <li>Academic-Corporate Collaboration \$\$</li> <li>Citing-Patents Count</li> <li>Patent-Citations Count</li> <li>Mass Media \$\$</li> <li>Media Exposure</li> <li>Field-Weighted Mass Media</li> </ul>

# Metrics for Use in Your Own Applications

Feed metrics to:

- Internal warehouse systems
- CRIS' like Pure
- Reporting systems like Tableau
- Push university organizational structure from Pure to SciVal.



\*More CRIS system support to follow



# Getting help

The spine menu provides links to additional help documentation

https://service.elsevier.com/app/hom e/supporthub/scival/

鼠 Reporting My SciVal (?) Trends Scopus 7 SciVal Support Center Quick Guide to SciVal クイックレファレンスガイド (日本語) Export 🗸 ing SciVal 快速上手指南 (繁體中文) oup's Topics SciVal 快速使用指南(简体中文版)  $\times$ SciVal Metrics Guidebook Idwide Grou Usage Guidebook Pul percentile Patent Metrics

# Q&A session

Empowering Knowledge<sup>™</sup>







# Next sessions

- 1. SciVal intro and data sources
- 2. Visualize research performance the Overview module
- 3. Benchmark your progress!
- 4. Reports how to use templates?
- 5. Develop collaborative partnerships and analyze research trends
- 6. Entities in SciVal Institutions and Countries
- 7. Entities in SciVal Researchers and Publication Sets
- 8. Entities in SciVal Topics, Research Areas and Journals





# Thank you

Kate Patyrak, k.patyrak@elsevier.com Bartlomiej Wieckowski, b.wieckowski@elsevier.com

