



# OpenAlex – a Gamechanger?

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<https://doi.org/10.34734/FZJ-2024-03526>



# Bibliometric Databases

Database	Vendor	Start	open	inclusive	GUI
Web of Science	Eugene Garfield ISI / Thomson Reuters / Clarivate	print 1964, magnetic tape 1966, web 1997	X	X	✓
Scopus	Elsevier	2004	X	X	✓
OpenCitations Corpus	OpenCitations	2010	✓	✓	X
Dimensions	DigitalScience	2018	(X)	✓	✓
OpenAlex	OurResearch	2022	✓	✓	✓

# The Competence Network Bibliometrics Kompetenznetzwerk Bibliometrie (KB)



Competence network and data infrastructure for bibliometric research and application in Germany since 2008.

Data basis: proprietary solutions **Web of Science** and **Scopus**.

The network includes 23 partners, more than 200 published research works.

The current funding period (2022-2024) includes a pilot to move from closed to open data practices by integrating **OpenAlex** (KBOPENBIB).



GEFÖRDERT VOM

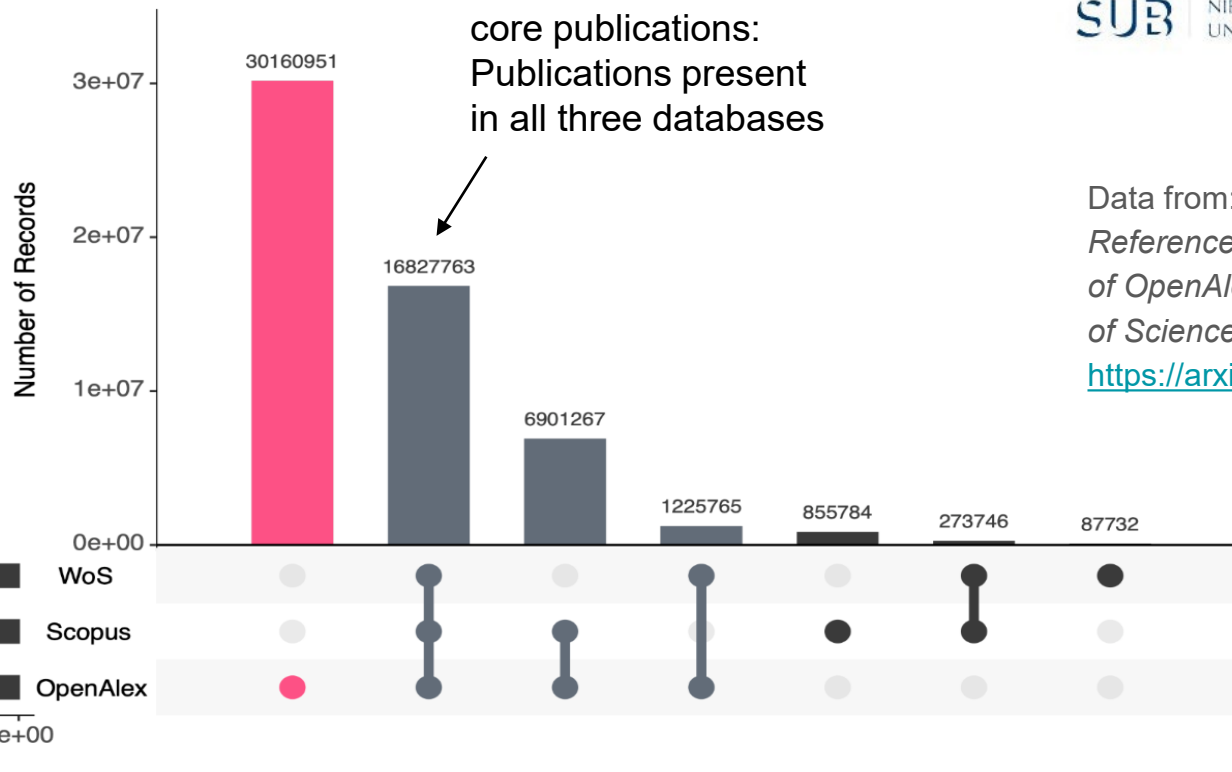


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# Aims of KBOPENBIB

- ✓ Provision of OpenAlex within the KB data infrastructure
- ✓ Coverage analyses: Comparing OpenAlex with Web of Science and Scopus
  - Items and References
  - Authors
  - Affiliations from German institutions
  - Document types
  - Funding
  - Journals and publishers
  - Open Access and full-texts
- Curation with focus on German research landscape

# Overlap of OpenAlex, Scopus and Web of Science

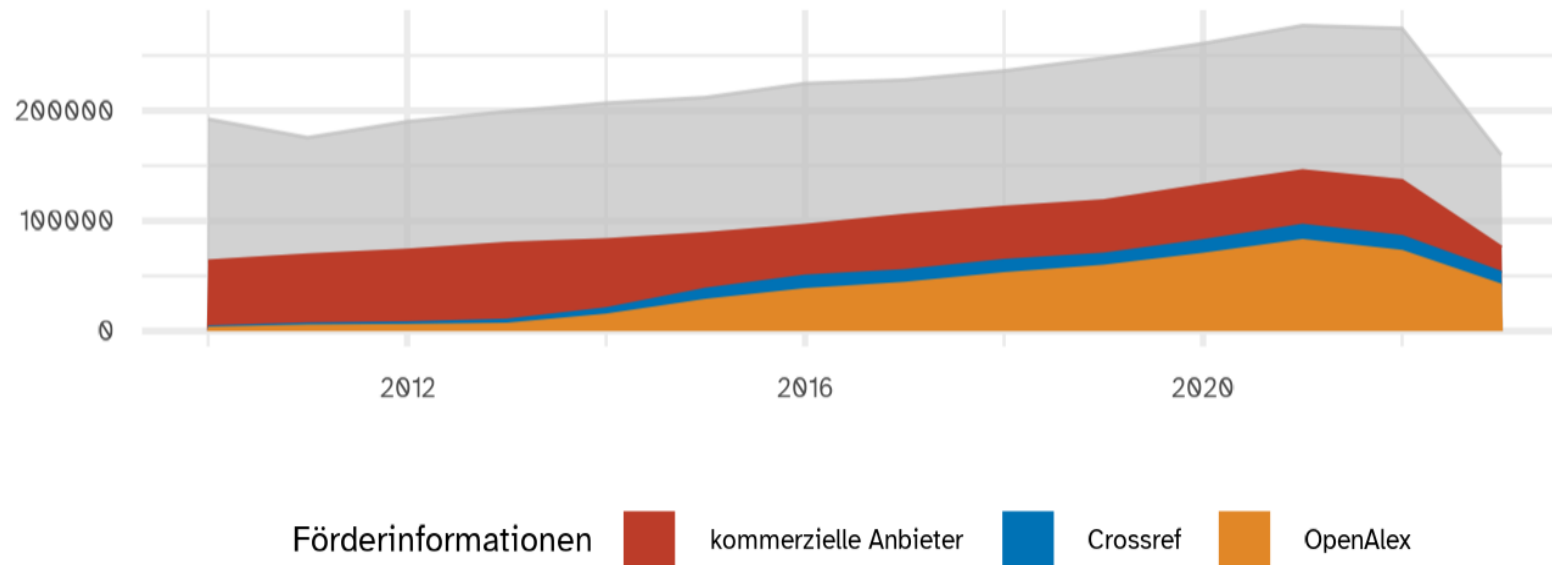


Data from: Culbert, et al. (2024)  
*Reference Coverage Analysis  
of OpenAlex compared to Web  
of Science and Scopus.*

<https://arxiv.org/abs/2401.16359>

# Coverage with respect to grant-supported articles

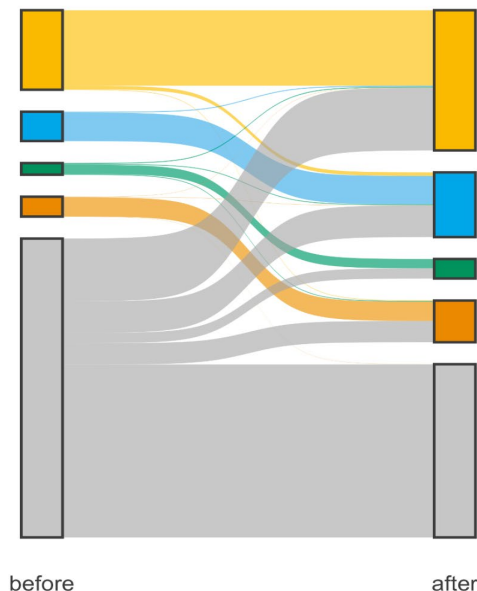
## Deutsche Publikationen



# Improving open access status classification



NIEDERSÄCHSISCHE STAATS- UND  
UNIVERSITÄTSBIBLIOTHEK GÖTTINGEN



## OA Status



November snapshot available 187 views



ca...@ourresearch.org

to OpenAlex users

Hi All,

The latest OpenAlex snapshot is available to download!

The release notes are:

RELEASE 2023-11-21

- improved affiliation matching for over 2 million works
- added keywords to works
- added cited\_by\_percentile\_year to works
- removed 3.9 million authors with 0 works (merged into deleted profile)
- improved oa status classification, converting 2.1 million closed works to open access statuses (ongoing - credit: [https://subugoe.github.io/scholcomm\\_analytics/posts/oalex\\_oa\\_status/](https://subugoe.github.io/scholcomm_analytics/posts/oalex_oa_status/))

We need to add cited\_by\_percentile\_year to the docs and will do that soon. Enjoy!

Thanks,  
Casey

# Publisher disambiguation (2010-2022)

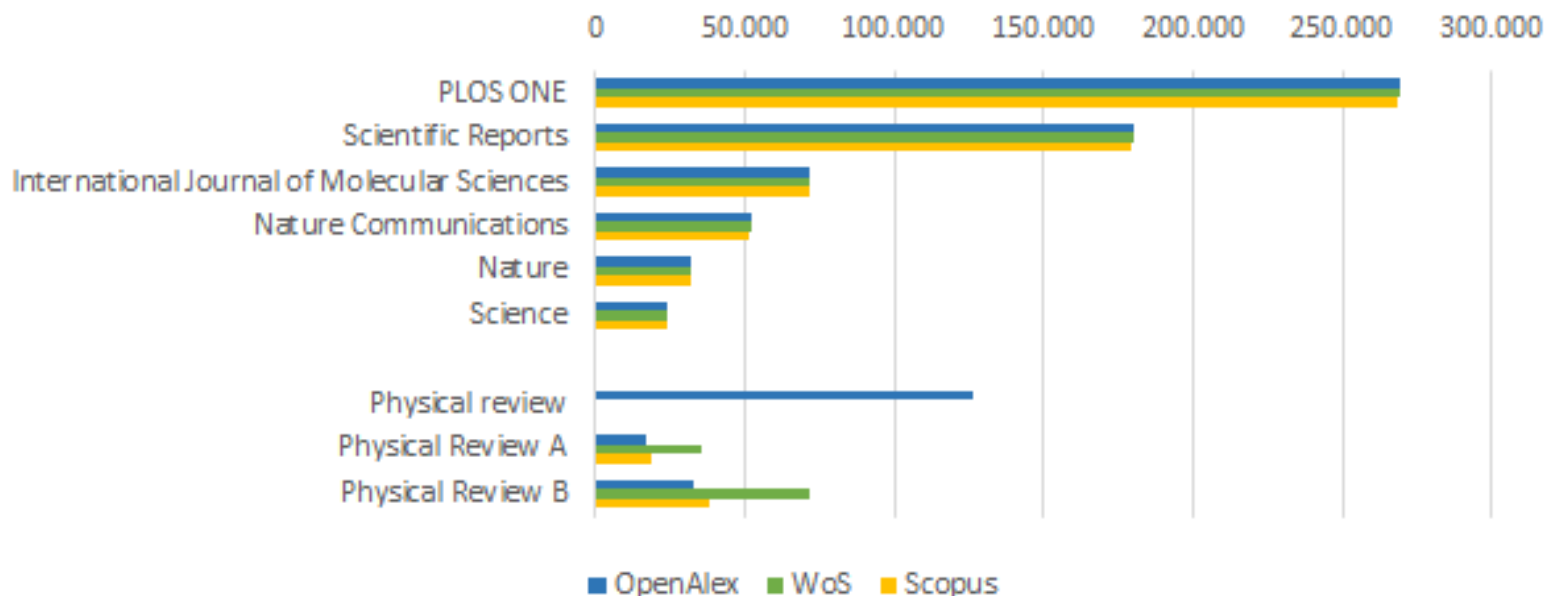
	Distinct publishers in core publications	Wiley & Imprints	Elsevier & Imprints	Springer Nature & Imprints
WoS	3,478	26	45	51
Scopus	3,699	30	42	66
OpenAlex	2,008	4	2	8

core publications: Publications present in each of the databases (16.8 Mio.)



# Journal disambiguation

Number of documents for a selection of the top journals of the core publications in OpenAlex, WoS, and Scopus 2010-2022



# Affiliation disambiguation

	Web of Science	Scopus	OpenAlex
Distinct address strings	2,269,047	3,449,043	3,955,516
Matching addresses	85.6 %	84.7%	89.9 %
Distinct address-item-combinations	7,393,265	6,973,092	7,495,858
Matching addresses	93.2 %	88.5 %	89.5 %

Taubert (2024): OpenAlex im Kompetenznetzwerk Bibliometrie  
<https://biecoll.ub.uni-bielefeld.de/index.php/kwi/article/view/1149/1161>

# Author-name disambiguation

<https://openalex.org>

Search and analyze the world's research.



Bernhard Mittermaier



**Bernhard Mittermaier**

Author at Forschungszentrum Jülich, Germany



**Bernhard Mittermaier**

Author at Los Alamos National Laboratory, USA



Search for "**Bernhard Mittermaier**" in work fulltext

press Enter

Unsaved search ▾ 🔔 ⚙️ 🔄

Show works where:

1

+

🗑️

Author

is ▾

☐ Information 4

☐ Science Library Science

☐ Business 1

☐ Chemistry Analytical 1

☐ Computer Science 1

☐ Interdisciplinary Applications

☐ Engineering Civil 1

☐ Engineering 1

☐ Environmental

☐ Environmental Sciences 1

☐ Management 1

☐ Respiratory System 1

### Subject areas

Social Sciences • Computer Science • Engineering • Arts and Humanities • Business, Management and Accounting • Medicine • Biochemistry, Genetics and Molecular Biology • Environmental Science

+ ×

**Works** ⌵ ⬇ ⋮ **Stats** + ⬇

Volatile organic compounds in the exhaled breath of young patients with cystic fibrosis

2006 · Michael Barker, Meike Hengst, et al. · *European respiratory journal/The European respiratory journal*

Cited by 153 PDF

Creation of journal-based publication profiles of scientific institutions – A methodology for the interdisciplinary comparison of scientific research based on the J-factor

2009 · Rafael Ball, Bernhard Mittermaier, et al. · *Scientometrics*

Cited by 19 PDF

Double Dipping in Hybrid Open Access – Chimera or Reality?

2015 · Bernhard Mittermaier · *ScienceOpen research*

Cited by 10 PDF

Open Access Monitor Germany: Best Practice in Providing Metrics for Analysis and Decision-Making

2022 · Irene Barbers, Franziska Stanzel, et al. · *Serials review*

Cited by 4 PDF

Data-Driven Transition: Joint Reporting of Subscription Expenditure and

**110 results**

🏠 type ⌵ ×

<input type="checkbox"/> article	95
<input type="checkbox"/> book-chapter	10
<input type="checkbox"/> preprint	2
<input type="checkbox"/> dataset	1
<input type="checkbox"/> paratext	1

More...

🏢 institution ⌵ ×

<input type="checkbox"/> Helmholtz Association of German Research Centres	15
<input type="checkbox"/> Forschungszentrum Jülich	15
<input type="checkbox"/> RWTH Aachen University	3
<input type="checkbox"/> University of Stuttgart	2
<input type="checkbox"/> GSI Helmholtz Centre for Heavy Ion Research	1

More...

📁 topic ⌵ ×

<input type="checkbox"/> Role of Literature in Museum Exhibitions	49
<input type="checkbox"/> Name Authority Control in Bibliographic Repositories	6
<input type="checkbox"/> Estimating Vehicle Fuel Consumption and Emissions	5
<input type="checkbox"/> Business Management in Information Age	4
<input type="checkbox"/> Atmospheric Aerosols and their Impacts	2

More...

🔒 open access ⌵ ×

11,8%  
13 works

📅 year ⌵ ×

WoS: 8 documents, 5 Open Access

Scopus: 8 documents, 6 Open Access

More...

## Conclusions

- OurResearch has developed an alternative to proprietary bibliometric databases in an astonishingly short time.
- OurResearch is very responsive to development contributions from the community.
- OpenAlex will remain permanently open (“Principles of Open Scholarly Infrastructures” (POSI), CC-0 license)
- A comparison with the established databases shows that there is still a need for development in some areas. Nevertheless, OpenAlex is already being used productively, e.g. by Sorbonne and CNRS (France), in the Leiden Open Ranking (The Netherlands), and in the German and Swiss Open Access Monitor.

# Outlook for Competence Network Bibliometrics



## Until end of 2024

 Open Data release covering German research

## Until end of 2025

 Improved automatic data curation routines

Thank  
You

## Starting from 2026

 Selective licensing: One proprietary database + OpenAlex (and friends)

## Starting from 2029

 Fully Open Data: Presumably only OpenAlex

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