

“Bibliometrics is the application of quantitative analysis (counting) and statistics to **publications** such as journal articles or books and their accompanying **citation counts.**”

*Source: Pritchard, A. (1969): Statistical Bibliography or Bibliometrics?
In: Journal of Documentation 25 (4): 348-349.*



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Altmetrics analyse communication in social media



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Productivity

- The number of scholarly publications published

Views

- Interest shown

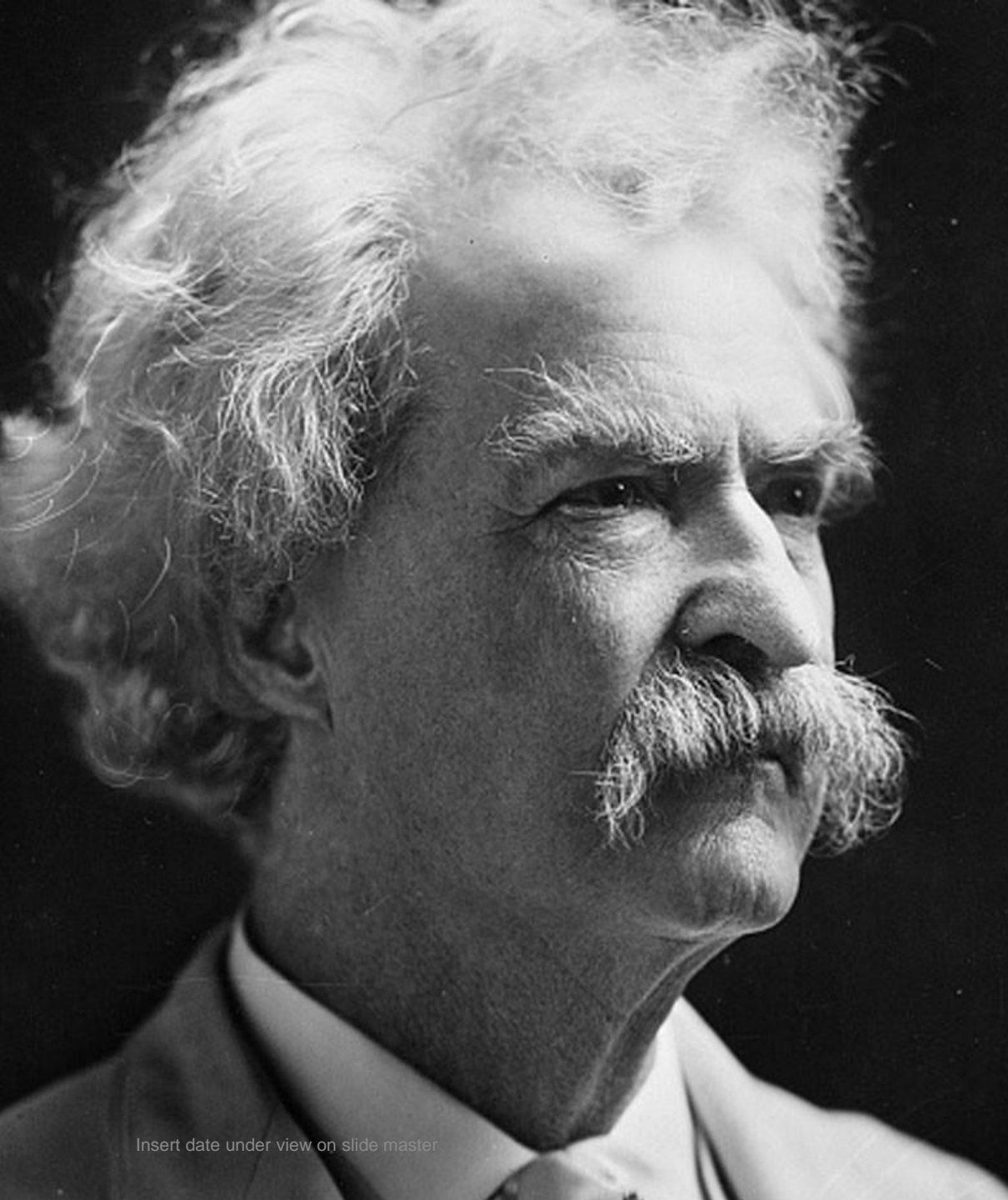
Impact

- Citations in peer reviewed literature

Disclaimers

- Data is retrieved from Scopus or SciVal (also based on Scopus data)
- Date range: 2015-2019 – 5 years
- Only journal articles and reviews were included





‘There are lies,
there are damn
lies and then
there are
statistics.’

Mark Twain

What is the distribution of open access against paid access journal article publications for South Africa and the University of Pretoria?



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South African journal articles & reviews, 2015-2019

Total	96,673
Open access	37,327 (39%)
Other	59,346 (61%)

South African journal articles & reviews, 2015-2019

Total	96,673
Open access	37,327 (39%)
Other	59,346 (61%)

University of Pretoria articles & reviews, 2015-2019

Total	11,510
Open access	4,564 (40%)
Other	6,946 (60%)

What is the impact of
these journals
respectively?



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Numbers of citations received = impact

South Africa

Total	961,994
Open access	432,532
Other	529,462

University of Pretoria

Total	201,220
Open access	88,500
Other	112,720



Numbers of citations received = impact

South Africa

Total	961,994
Open access	432,532
Other	529,462

University of Pretoria

Total	201,220
Open access	88,500
Other	112,720

Citations per paper

Total	9.95
Open access	11.59
Other	8.92

Total	17,48
Open access	19.39
Other	16.23

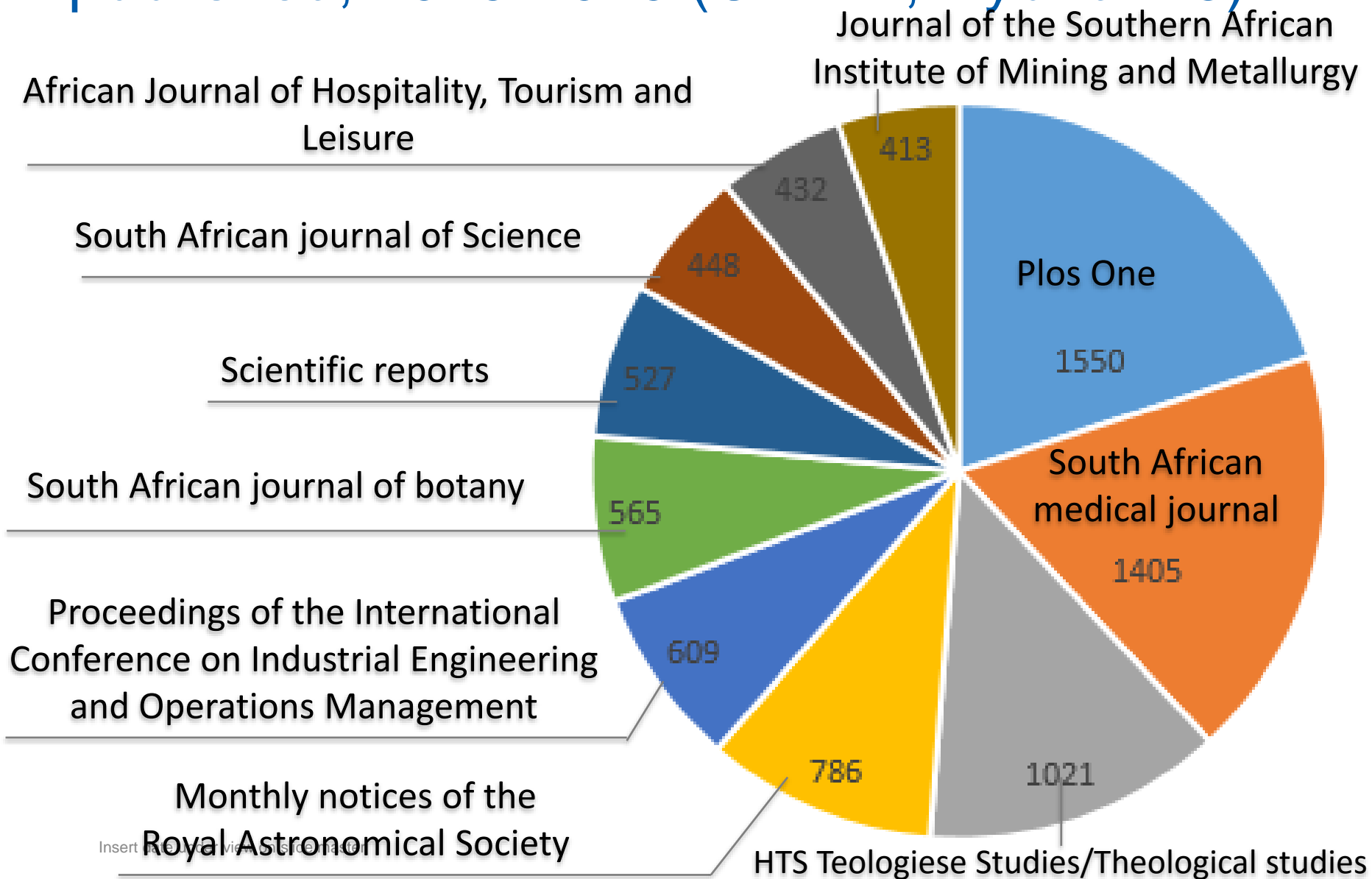


Which journals are
mostly published in and
how many of those are
Open access?

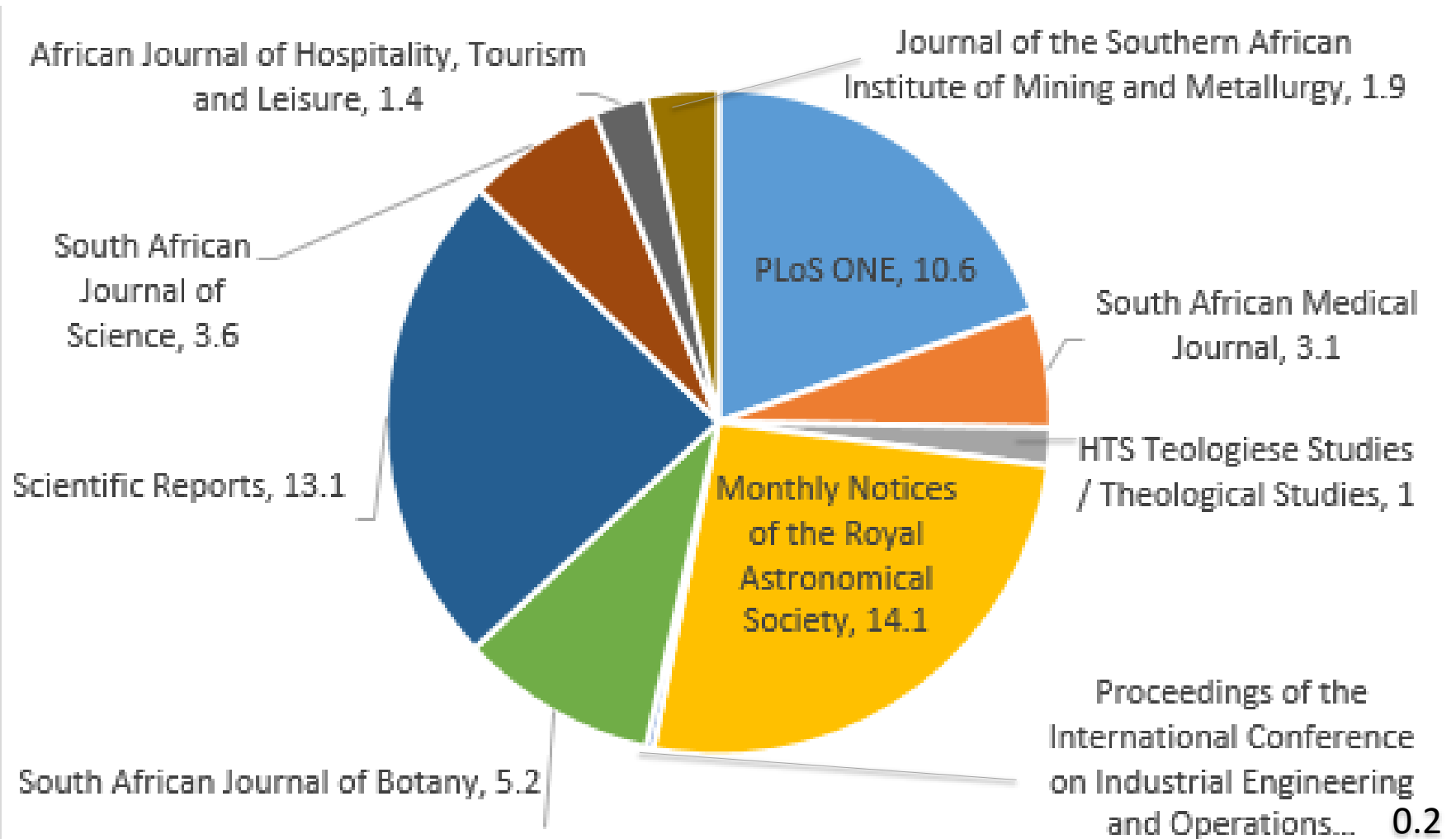


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Top 10 journals where most SA researchers published, 2015-2019 (OA = 7, Hybrid = 3)



Top 10 journals in SA - Citations per paper



Where did UP authors
publish mostly,
2015-2019?



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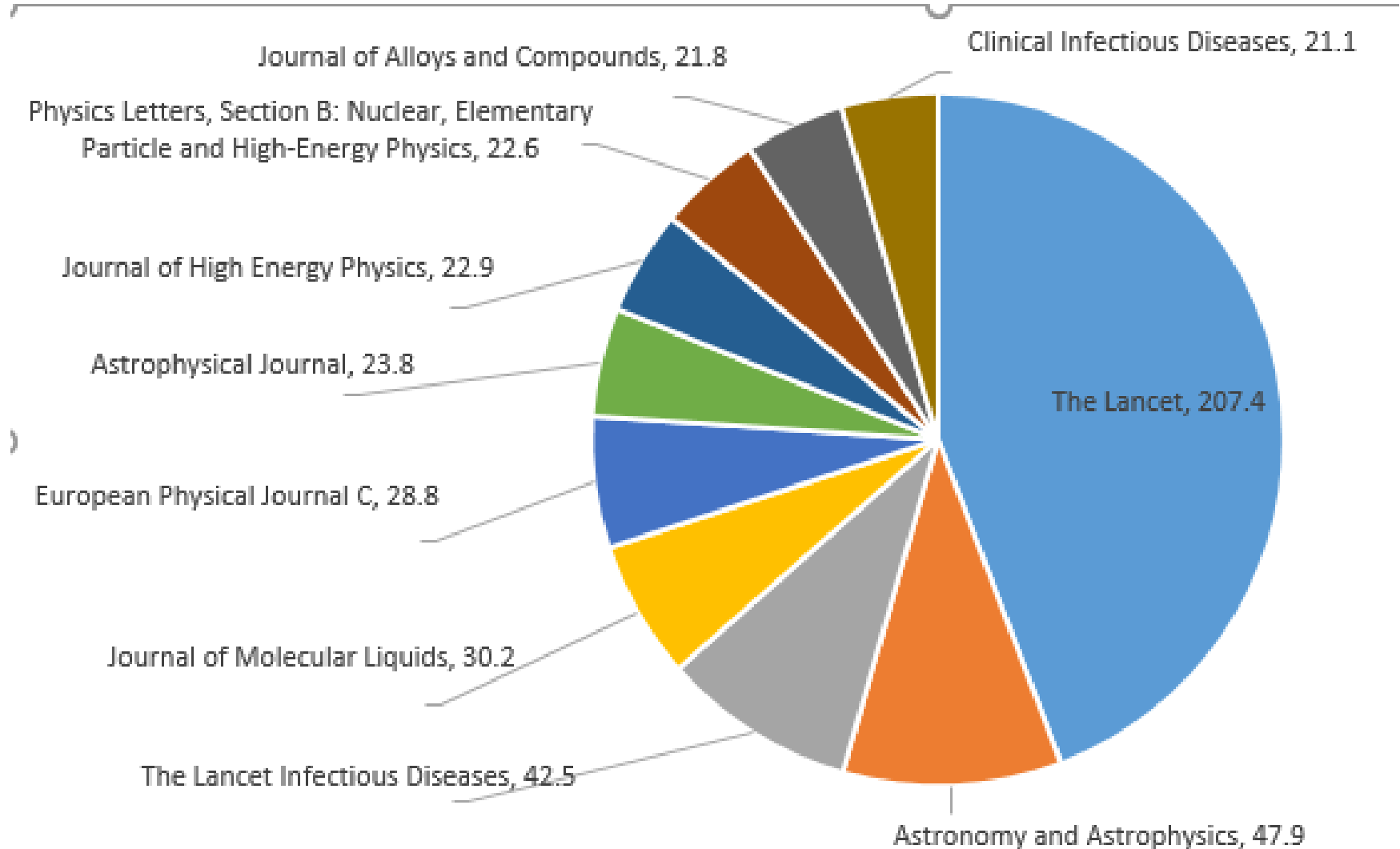
Journal name	CiteScore	# articles	Citations	Impact
HTS Teologiese studies	0.6	461	508	1.1
Plos One	5.2	197	2166	10.99
South African medical journal	1.8	168	597	3.55
Verbum et Ecclesia	0.4	115	140	1.22
South African journal of science	1.9	82	178	2.17
Scientific reports	7.2	80	962	12.03
South African journal of botany	2.8	80	394	4.93
Chemical engineering transactions	1.3	73	145	1.99
Journal of the South African Veterinary Association	1.5	68	217	3.19
South African family practice	0.8	66	71	1.08

Which journals had
the highest impact
within South Africa?



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SA highest citations per paper, 2015-2019



Which were the highest ranked journals where UP authors published in 2015-2019?



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UP publications in highest ranked journals, 2015-2019

Journal name	CiteScore	# UP articles	Citations	Impact
Chemical reviews	100.5	1	24	24
Nature Reviews Genetics	76.6	1	283	283
The Lancet	73.4	6	398	66
Chemical Society Reviews	66.4	1	10	10
New England Journal of Medicine	66.1	2	303	152
Cell	56.2	2	216	108
Nature	55.7	10	488	49
Nature Genetics	52.3	4	384	96
Nature Reviews Microbiology	50.6	2	63	32
Science	49.5	14	712	51

Field-weighted citation impact (FWCI)

Normalised for:

- subject field
- publication type
- publication date

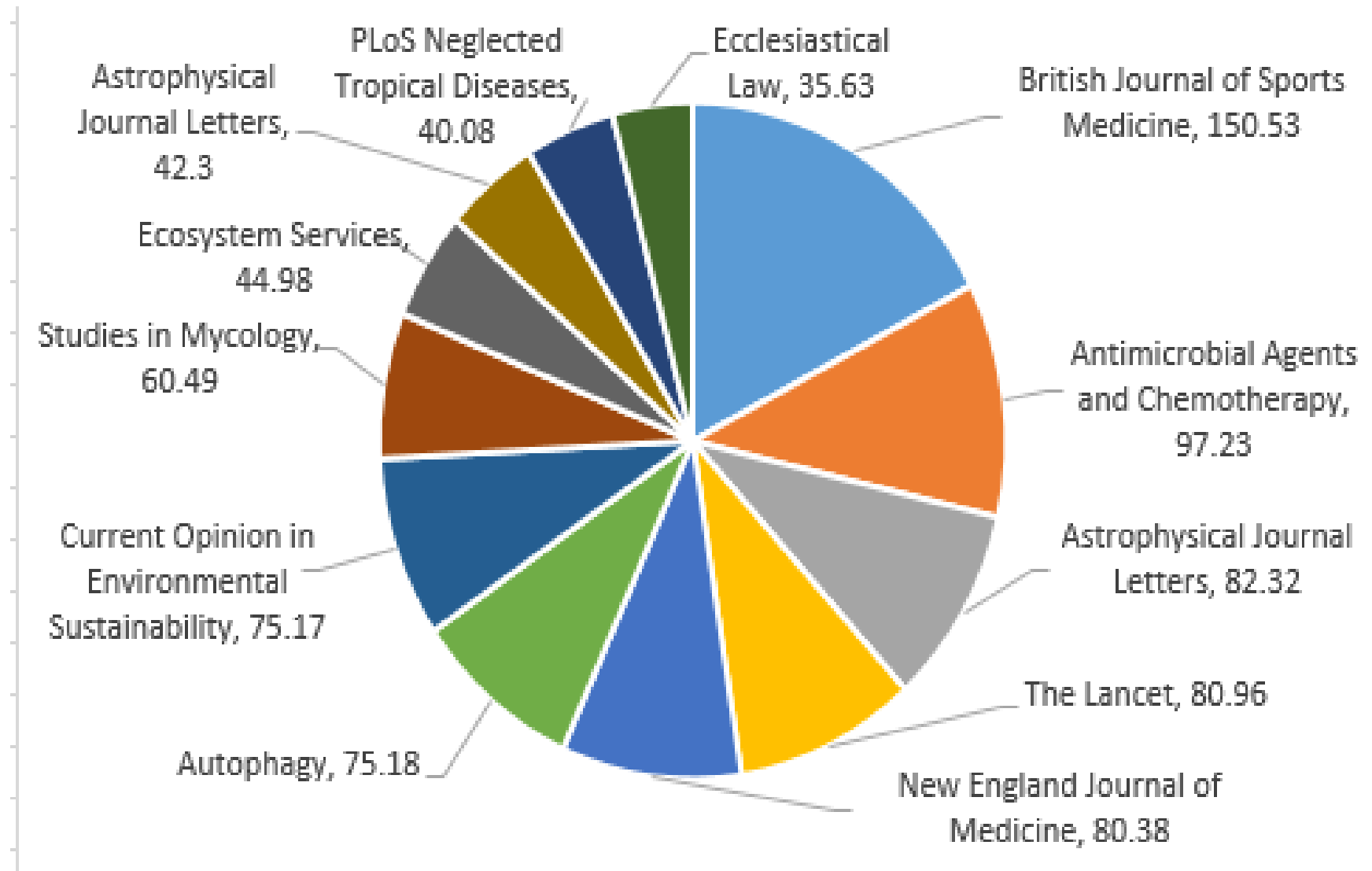


Which journals where UP
published had the highest
Field-Weighted citation
impact,
2015-2019?



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Journals with the highest FWCI, 2015-2019

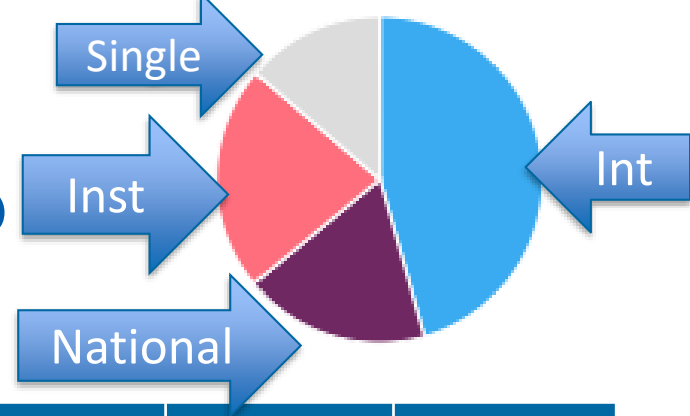


What impact did international co-authorship have?



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UP international co-authorship



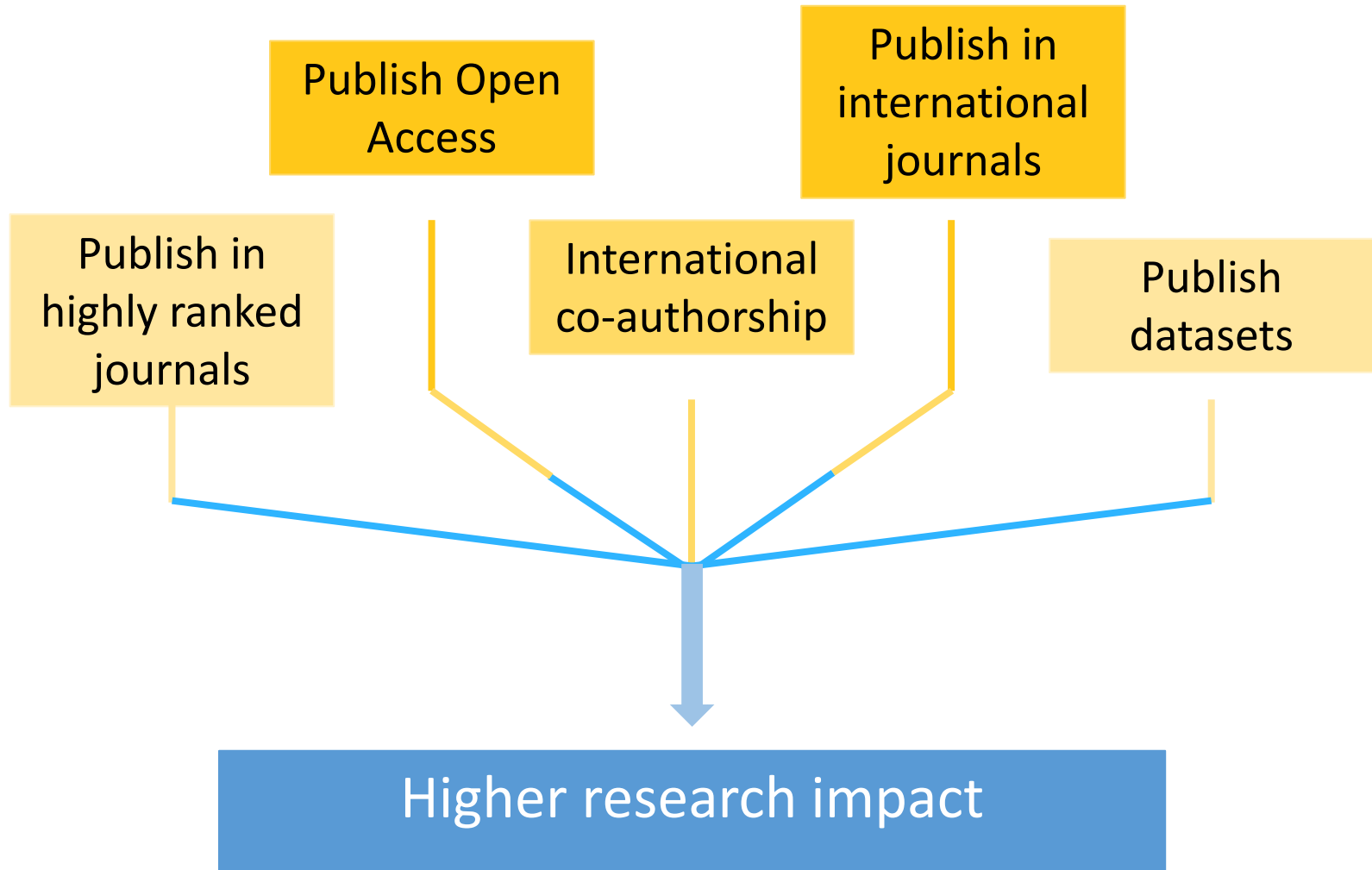
Metric	%	# papers	Citations	Impact	FWCI
International collaboration	45.6%	<u>6,444</u>	72,848	11.3	1.66
Only national collaboration	18.4%	<u>2,593</u>	12,661	4.9	0.77
Only institutional collaboration	22.3%	<u>3,150</u>	16,163	5.1	0.72
Single authorship (no collaboration)	13.7%	<u>1,939</u>	3,862	2.0	0.74

Publishing data sets

- **9% higher citation impact, 2013**
(Piwawar, H A (2013), Data reuse and the open data citation advantage, <https://peerj.com/articles/175/>, viewed on 23 Oct 2019)
- **25 % higher citation impact, 2019**
(Colavizza, G, et.al. (2019), Open Data Linked to higher citations for journal articles, arXiv:1907.02565, viewed on 23 Oct 2019)



In Conclusion



Thank you



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