

Prospettive della storia delle scienze esatte. Tra fisica e filosofia.

La biblioteca DISG e la valorizzazione della ricerca
Mary Joan Crowley

Sistema Bibliotecario della Sapienza fornisce servizi a:



- 111600 studenti
- 3120 candidati Ph.D
- 3700+ docenti e ricercatori
- 4300+ personale
- 11 facoltà
- 63 dipartimenti
- 2 ospedali

Sistema bibliotecario della Sapienza

<https://web.uniroma1.it/sbs/home>



- 56 Biblioteche
- 2.600.000 libri
- 12000+ riviste online
- Collezioni di e-books
- 80+ banche dati
- 25.000+ libri antichi
- Online research catalogue
<https://iris.uniroma1.it/>

Facoltà ICI

Biblioteca Centrale, La Boaga
- 220 posti



6 Biblioteche Dipartimentali
- 500 posti

- Astronautica, elettrica e energetica
- Chimica, materiali e ambiente
- Civile, edile e ambientale
- Meccanica e aerospaziale
- Strutturale e geotecnica
- Scienze di base e applicate per l'ingegneria (**aperta 24h**)

Servizi e Opportunità

Biblioteche aperte h24

- <https://web.uniroma1.it/sbs/tags/biblioteche-h24>

Accesso alle risorse online anche da fuori della Sapienza

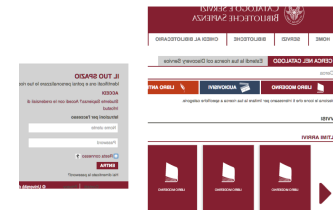


Prestiti, Information literacy.....

- <https://nilde.bo.cnr.it/>



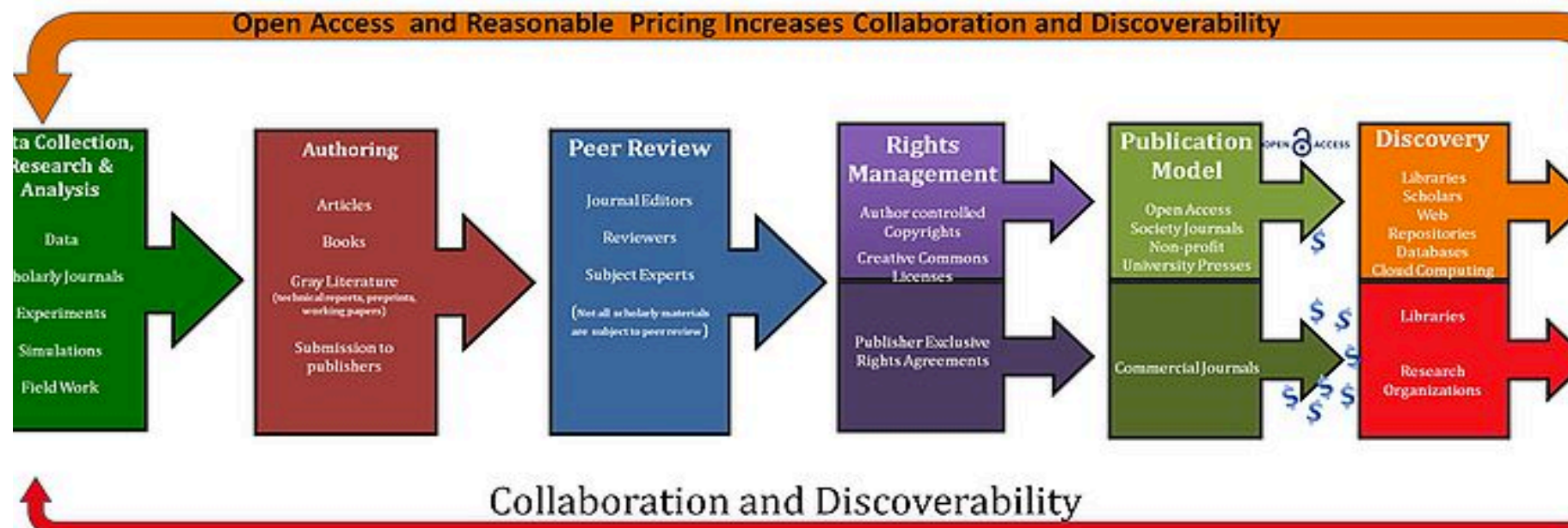
Lavora con noi



Scholarly communication process

source : <http://hlwiki.slais.ubc.ca/index.php/>

Lifecycle of Scholarly Communication



The process of scholarly communication has developed over centuries to create, evaluate, certify, disseminate and preserve the intellectual output. It involves three major stakeholders -the **scholars** who create the knowledge, **publishers**, who review, edit, package and distribute the knowledge, and **libraries/repositories** that collect, preserve and organize the knowledge. The digital revolution has enabled quicker and cheaper access to information and alternative models of publication. Digital Publishing, Digital Repositories, Open Access Journals are all representatives of new models of publications. **Creative Commons Licensing Agreements** allow wider distribution and use of scholarly materials.

Bibliometrics: an inexact science

- Paper inflation presents a challenging exercise of finding works that have significant contributions
- Bibliometrics is defined as the statistical analysis of written publications.
- Bibliometrics (citational analysis, H-index, JIF) are a useful tool to assess the impact of an author, an article or a journal
- **Web of Science, Scopus and Google Scholar** are the most commonly used citational databases

Metrics used as judgement devices

- Giving judgments of applicants for academic positions and tenure
- Research Assessment Exercises
- Funding

Prone to manipulation

- Self cites
- Citation rings
- Reviewer requests
- Article inflation

Citation, noun. (Ci·ta·tion)

1. "The action or an act of quoting or referring to a passage, text, author, legal precedent, etc., esp. as an authority or in support of an argument; quotation."
2. "A cited passage, a quotation."
3. "A reference providing information about where a particular quotation, text, etc., is to be found; a bibliographical reference."

Oxford English Dictionary Online

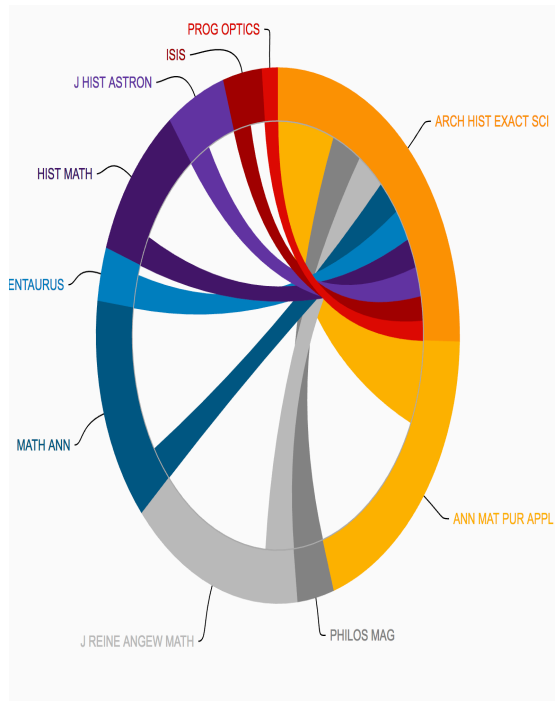
Citation overview

- Breaks down the citations of an article or author's articles by year.
 - Can select custom year ranges.
 - Option to create citation alert.
 - See collaborators.
-
- **Citations are used to calculate h-index and the journal's impact factor.**

Journal impact factor

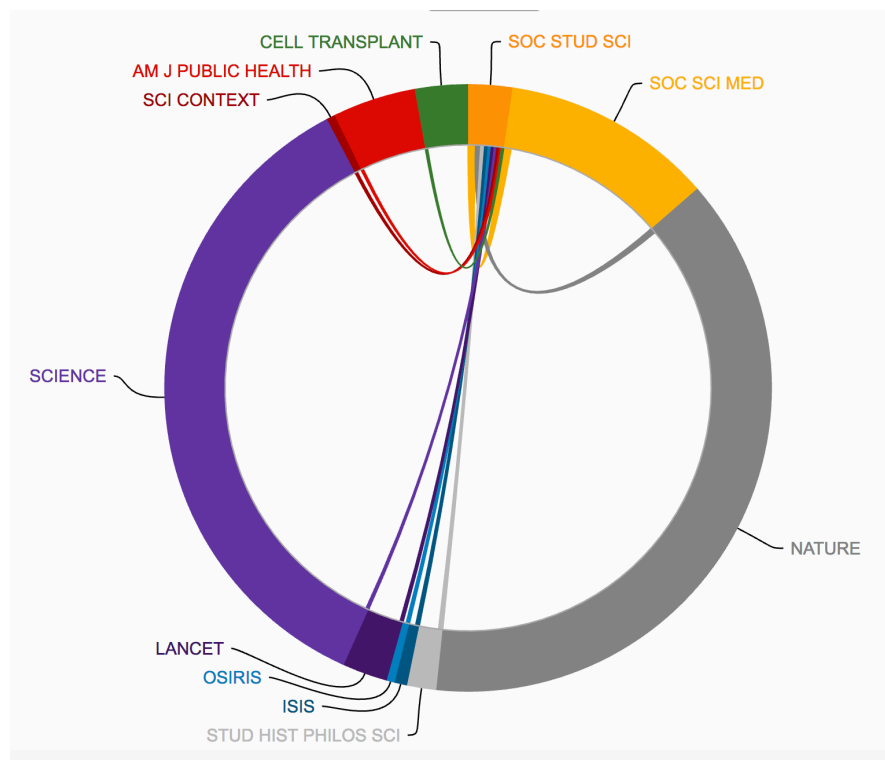
- is a measure of the frequency with which the average article in a **journal** has been cited in a particular year.
- used for a journal's reputation and by association the standing of a candidate
- Introduced by Gross and Gross in 1927 (Gross and Gross 1927), later developed by Eugene Garfield and incorporated as a feature in the Science Citation Index (Garfield and Sher 1963)

ARCHIVE FOR HISTORY OF EXACT SCIENCES



Year ▼	Total Cites Graph	Journal Impact Factor Graph	Impact Factor Without Journal Self Cites Graph	5 Year Impact Factor Graph
2016	285	0.308	0.230	0.378
2015	258	0.333	0.305	0.402
2014	237	0.455	0.393	0.528
2013	223	0.324	0.264	0.319
2012	210	0.514	0.485	0.467
2011	182	0.184	0.131	0.218
2010	185	0.400	0.275	0.435
2009	357	0.667	0.527	0.654

SOCIAL STUDIES OF SCIENCE ISSN: 0306-3127



Year ▼	Total Cites Graph	Journal Impact Factor Graph	Factor Without Journal Self Cites	5 Year Impact Factor Graph
			Graph	
2016	2,792	2.256	1.865	3.294
2015	2,430	2.679	2.271	3.053
2014	2,153	2.351	2.051	2.678
2013	1,971	2.151	1.904	2.466
2012	1,871	1.770	1.527	2.237
2011	1,689	1.500	1.338	2.286
2010	1,544	1.723	1.415	2.377
2009	1,637	1.373	1.313	2.260
2008	1,185	1.343	1.194	1.987
2007	1,020	1.651	1.555	2.124
2006	707	1.406	1.000	Not A

Bookmetrix brings together a collection of performance metrics, helping you to see how your books are being discussed, cited, and used around the world



© 2011

The Invention of Science: Why History of Science Matters for the Classroom

Authors: **Milne**, Catherine

Book Metrics



Citations

4



Downloads

3760

Provided by **Bookmetrix**

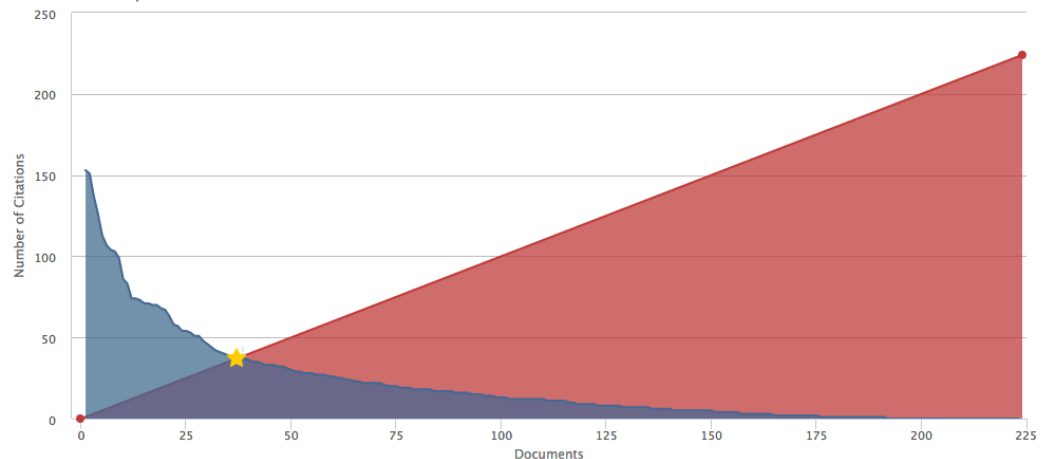
H-index – author evaluator

A scientist has index h if h of his or her N_p papers have at least h citations each.

In this chart the author has 223 documents, 37 of which have been cited at least 37 times.

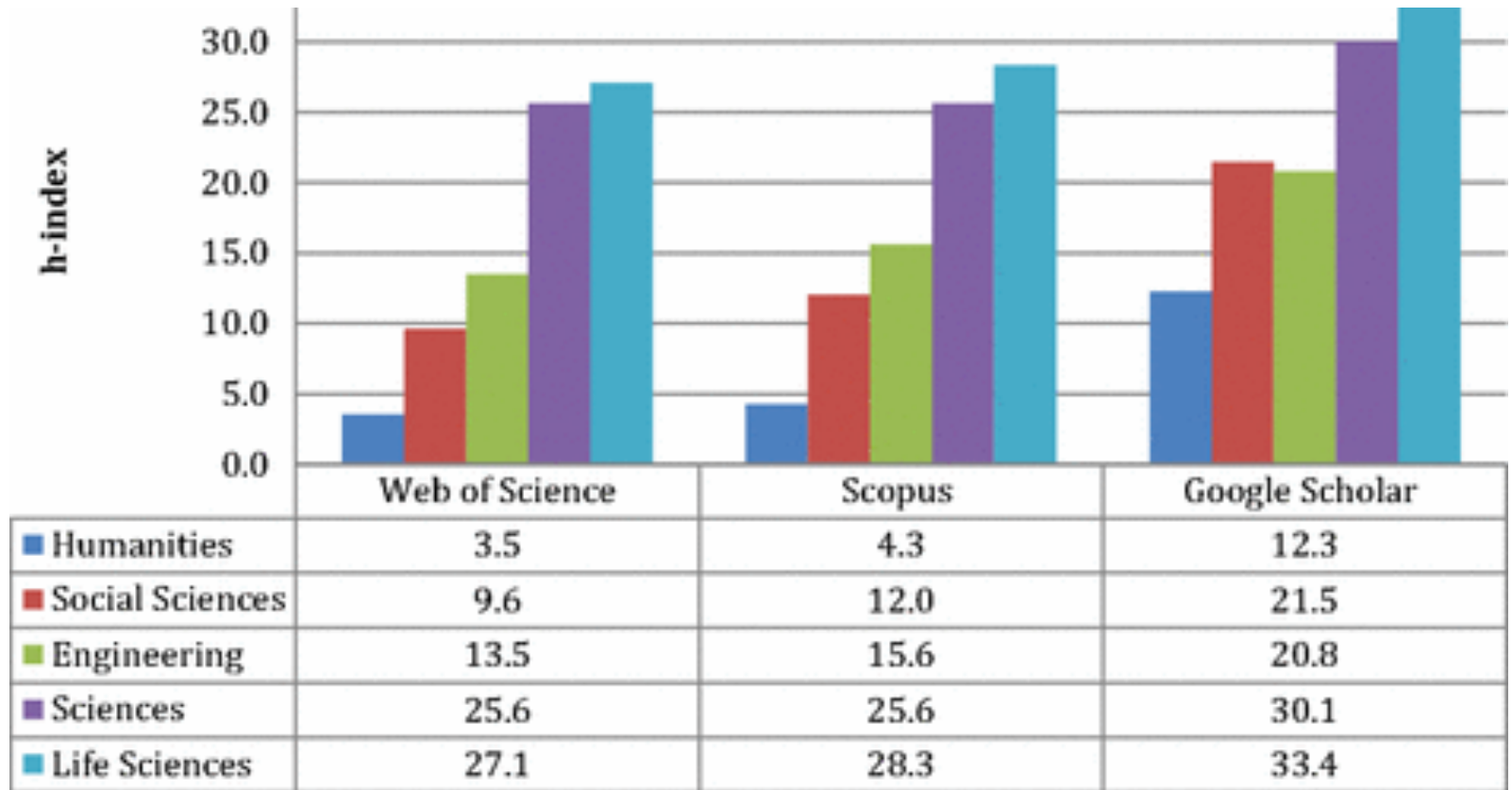
This author's h -index is 37

The h -index is based upon the number of documents and number of citations.



Average *h*-index per academic for five different disciplines in three different databases, July 2015

Source: Harzing, AW. & Alakangas, S. *Scientometrics* (2016) 106: 787.
doi:10.1007/s11192-015-1798-9



- For some 400 years authors write a paper on their research, and it is published in a journal or book with the aim of disseminating their results.
- With the WWW came new opportunities for instantaneous dissemination, increased searchability, speed, greater access
- Additional info, by way of data sets, graphics, videos, linked data
- Thanks to the Digital Age more informal scholarly communication occurs through listservs, social networks – Mendeley, twittering etc

Altmetrics from real-time online usage

- As a measure, it reflects aspects of user interaction with a digital service
- Use and usage now embrace other terms often encountered such as “hits”, “clicks”, “reads” and “downloads”.
- The explosion of social media, along with development of popular professional and scientific websites and blogs provide other data
- Academic social networks: Mendeley

Metrics



14

Citations

96TH PERCENTILE



12.58

Field-Weighted Citation Impact



119

Mendeley Readers

98TH PERCENTILE



2

Blog posts



66

Tweets

96TH PERCENTILE



6

Mass Media mentions

Select data provided by altmetric.com

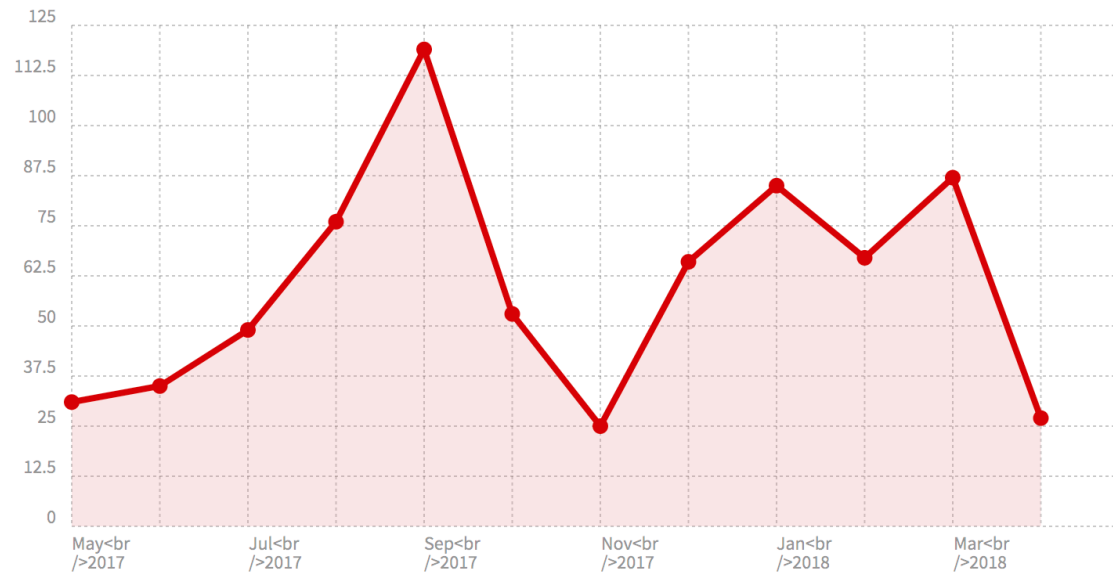


[View all metrics](#)

Metrics

Total Views	504 Pageviews
720	216 PDF Downloads

Since 5/1/2017



Citations

2	Web of Science
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Shares



[See more details](#)

- Blogged by 1
- Tweeted by 6
- 21 readers on Mendeley

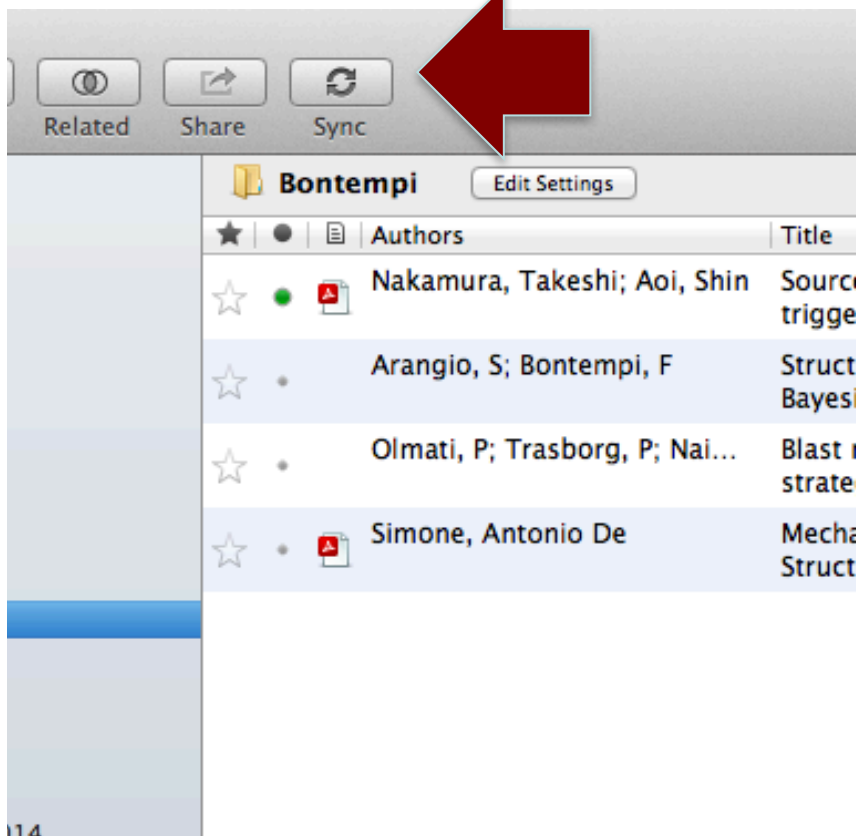
What is Mendeley?

- **Organise/Share** your documents and references
- **Create** a bibliography/MS Word Plugin
- **Collaborate** by joining and creating groups (5 X 5)
- **Stay up to date**

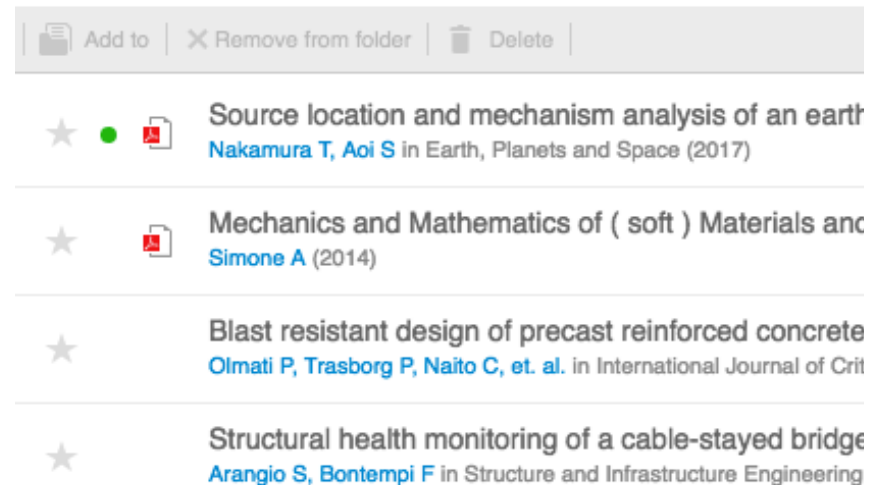


To access your PDFs from anywhere activate the *synchronisation* feature on Mendeley desktop.

Desktop

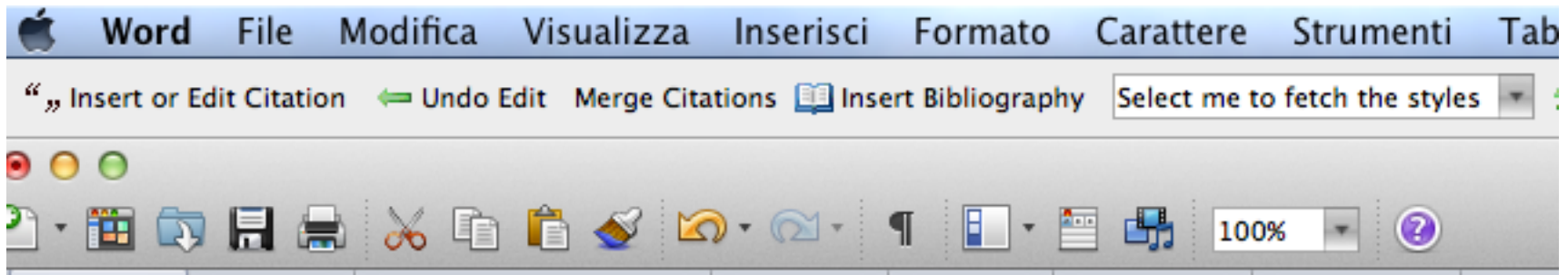


Web



Citation plug-in

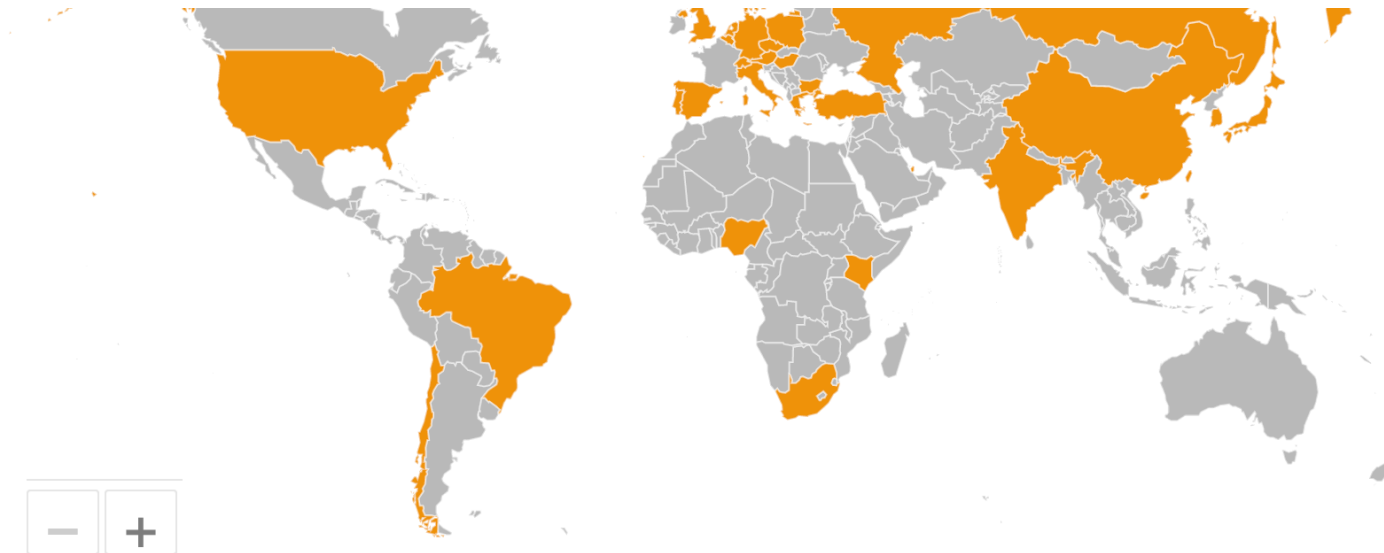
- This enables you to cite a document, generate a bibliography, insert citations
- Windows XP, 7 and 8 (both 32 and 64bit instances)
Mac OSX 10.6 or later, Linux
- Click on tools – Install MS Word Plugin...start citing



OA2020

- Transform the core of today's scholarly journals from subscription to OA publishing.
- Pursue this transformation process by converting resources currently spent on journal subscriptions into funds to support sustainable OA business models.
- Engage all parties involved in scholarly publishing, in particular universities, research institutions, funders, libraries, and publishers to achieve a rapid and efficient transition for the benefit of scholarship and society at large.

OA2020 Community



Signatories Italy & Vatican City

Foundation Telethon

Pontifical Academies of Sciences and Social Sciences

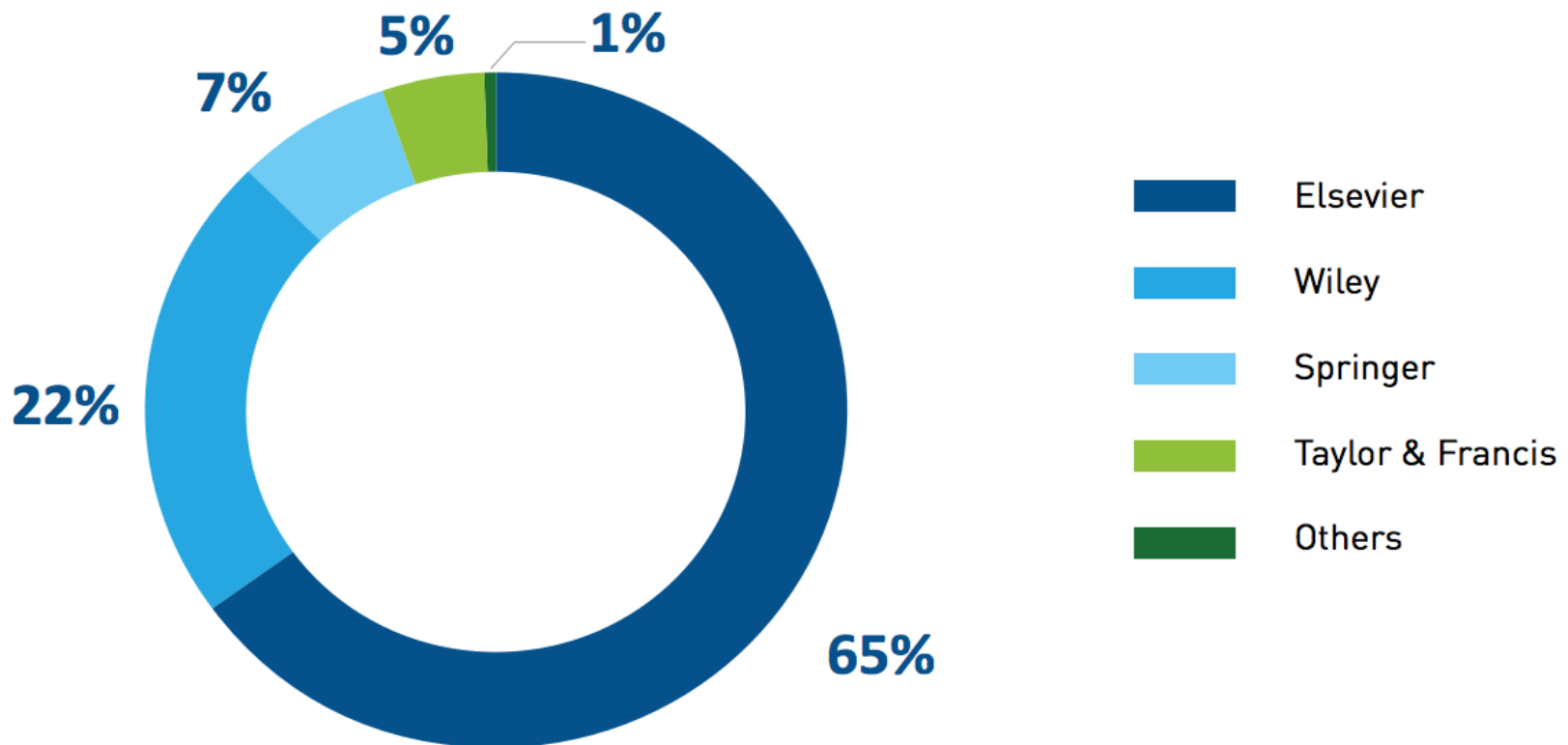
The Conference of Italian University Rectors (CRUI)

Why it matters

- **We are spending too much money.** Subscription prices have risen 60% in 10 years. Double dipping!
- **We want to take back the power.** Unchallenged oligopoly of publishers with huge profit margins.
- **Authors retain the right** to freely share and reuse research and achieve maximum visibility of their outputs, through open dissemination.

EUA BIG DEALS SURVEY REPORT, April 2018

Percentage of periodicals expenditure per publisher of a total of 421 million euro: 28 countries



Who benefits



OA Gold Access

Business Models

We also collaborate with the publishing community, promoting pure *gold open access business models* new, transformative business models that are fair, transparent and sustainable. We feature some examples

SCOAP³, <https://scoap3.org/>

SciPost, <https://scipost.org/>

SciELO, <http://www.scielo.org>

Free the Science, <http://www.electrochem.org/free-the-science>

Libraria, <http://libraria.cc/why/how>

Knowledge Unlatched, <http://www.knowledgeunlatched.org/>

SCOAP

- The SCOAP³ model is based on a lightweight central administration which arranges payment of Article Processing Charges at a competitive level, through funds made available from a redirection of former subscription money.



arXiv.org

Open access to 1,376,892 e-prints in Physics, Mathematics, Computer Science, Quantitative Biology, Quant
Subject search and browse:

17 Apr 2018: [New search interface launched](#)

See cumulative ["What's New"](#) pages. Read [robots beware](#) before attempting any automated download

Physics

- [Astrophysics](#) ([astro-ph new](#), [recent](#), [find](#))
includes: [Astrophysics of Galaxies](#); [Cosmology and Nongalactic Astrophysics](#); [Earth and Planetary Ast](#)
- [Condensed Matter](#) ([cond-mat new](#), [recent](#), [find](#))
includes: [Disordered Systems and Neural Networks](#); [Materials Science](#); [Mesoscale and Nanoscale Physi](#)
- [General Relativity and Quantum Cosmology](#) ([gr-qc new](#), [recent](#), [find](#))
- [High Energy Physics – Experiment](#) ([hep-ex new](#), [recent](#), [find](#))
- [High Energy Physics – Lattice](#) ([hep-lat new](#), [recent](#), [find](#))
- [High Energy Physics – Phenomenology](#) ([hep-ph new](#), [recent](#), [find](#))
- [High Energy Physics – Theory](#) ([hep-th new](#), [recent](#), [find](#))
- [Mathematical Physics](#) ([math-ph new](#), [recent](#), [find](#))
- [Nonlinear Sciences](#) ([nlin new](#), [recent](#), [find](#))
includes: [Adaptation and Self-Organizing Systems](#); [Cellular Automata and Lattice Gases](#); [Chaotic Dyna](#)
- [Nuclear Experiment](#) ([nucl-ex new](#), [recent](#), [find](#))
- [Nuclear Theory](#) ([nucl-th new](#), [recent](#), [find](#))
- [Physics](#) ([physics new](#), [recent](#), [find](#))
includes: [Accelerator Physics](#); [Applied Physics](#); [Atmospheric and Oceanic Physics](#); [Atomic Physics](#); [Ato](#)
[Physics](#); [Geophysics](#); [History and Philosophy of Physics](#); [Instrumentation and Detectors](#); [Medical Physi](#)
- [Quantum Physics](#) ([quant-ph new](#), [recent](#), [find](#))

Mathematics

- [Mathematics](#) ([math new](#), [recent](#), [find](#))
includes (see [detailed description](#)): [Algebraic Geometry](#); [Algebraic Topology](#); [Analysis of PDEs](#); [Catego](#)
[Mathematics](#); [General Topology](#); [Geometric Topology](#); [Group Theory](#); [History and Overview](#); [Informati](#)

Self-archiving / Repository – the Green route

- Subject to copyright, authors can deposit or 'self-archive' a version of their articles in repositories / insitutional sites alongside their publication in normal journals.
- Repositories increase the visibility of the institution and raise the research/researcher's profiles

Some definitions

- **Preprint or submitted version:** This is the original manuscript as submitted to a journal, before any peer review has taken place.
- **Final author version :** It is the accepted, author-created version following peer review and editing. The text and any diagrams can be exactly the same as the published version, but does not include the publishers' logos, final formatting or typesetting. Usually links to the published version and any copyright statements, to assist with citation and proper acknowledgement.
- **Published version:** This is the definitive version as published in the journal.

Which journals allow what? www.sherpa.ac.uk/romeo

Journal:	Monthly Notices of the Royal Astronomical Society (ISSN: 0025-9718)
RoMEO:	This is a <u>RoMEO green</u> journal
Paid OA:	A paid open access option is available for this journal.

Author's Pre-print:	✓ author can archive pre-print (ie pre-refereeing)
Author's Post-print:	✓ author can archive post-print (ie final draft post-refereeing)
Publisher's Version/PDF:	✓ author can archive publisher's version/PDF

General Conditions:	<ul style="list-style-type: none"> • Pre-print on Institutional repository after acceptance • Publisher copyright and source must be acknowledged • Publisher's version/PDF cannot be used • Must link to publisher version • Authors may place their ePrint URL (free access to article) on cover page
Journal:	Annual Review of Astronomy and Astrophysics (ISSN: 0034-6801)
RoMEO:	This is a <u>RoMEO yellow</u> journal
Author's Pre-print:	✓ author can archive pre-print (ie pre-refereeing)
Author's Post-print:	✗ author cannot archive post-print (ie final draft post-refereeing)
Publisher's Version/PDF:	✗ author cannot archive publisher's version/PDF
General Conditions:	<ul style="list-style-type: none"> • Pre-print on Institutional repository after acceptance • Publisher copyright and source must be acknowledged • Publisher's version/PDF cannot be used • Must link to publisher version • Authors may place their ePrint URL (free access to article) on cover page
Mandated OA:	(Awaiting information)

Finding information.....beyond Google

Sapienza spends over €4 million per annum on books, journals, databases, and discovery tools. We provide access to over 20,000 ejournals, subscription databases, and millions of books.

If we don't have what you need we can either provide you a copy via inter-library loans, document delivery or provide you with access to other libraries.

If you need help or a few suggestions for best services to use just ask us or make an appointment

Thank you !

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