

# Getting Credit for your FAIR Data: The Importance of Preserving and Citing Data in Your Publication

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## **AGU's position statement on data affirms that**

**“Earth and space science data are a world heritage, and an essential part of the science ecosystem. All players in the science ecosystem—researchers, repositories, publishers, funders, institutions, etc.—should work to ensure that relevant scientific evidence is processed, shared, and used ethically, and is available, preserved, documented, and fairly credited.”**

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and fairly credited”**



# FAIR Guiding Principles

**FAIR is...**

**Findable**

**Accessible**

**Interoperable**

**Reusable**

Article in Nature journal *Scientific Data*: Wilkinson, M. D. *et al.* The FAIR Guiding Principles for scientific data management and stewardship. *Sci. Data* 3:160018 doi: 10.1038/sdata.2016.18 (2016).



# FAIR Guiding Principles (applies to data, software and all digital objects)

- **Findable**
  - Assign persistent IDs (PIDs), provide rich metadata, register in a searchable resource, ...
- **Accessible**
  - Retrievable by their ID using a standard protocol, metadata remain accessible even when data are no longer available...
- **Interoperable**
  - Use formal, broadly applicable languages, use standard vocabularies, qualified references...
- **Reusable**
  - Rich, accurate metadata, clear licenses, provenance, use of community standards...



# The FAIR Guiding Principles for scientific data management and stewardship


Mark D. Wilkinson, Michel Dumontier, [...]Barend Mons 

*Scientific Data* **3**, Article number: 160018 (2016) | [Cite this article](#)

**206k** Accesses | **2378** Citations | **1862** Altmetric | [Metrics](#)

2378 Citations  
as of 2 June 2021

206,000+ Accesses

 An [Addendum](#) to this article was published on 19 March 2019

## Abstract

There is an urgent need to improve the infrastructure supporting the reuse of scholarly data. A diverse set of stakeholders—representing academia, industry, funding agencies, and scholarly publishers—have come together to design and jointly endorse a concise and measureable set of principles that we refer to as the FAIR Data Principles. The intent is that these may act as a guideline for those wishing to enhance the reusability of their data holdings. Distinct from peer initiatives that focus on the human scholar, the FAIR Principles

## To make your data FAIR:

1. Use Persistent Identifiers (e.g., ORCID, DOI, ROR)
2. Preserve your data in trusted, community-accepted repository that supports FAIR data.
3. Describe your data well so that it can be understood.
4. License your data as openly as possible. CC0 or CC-BY 4.0 are good options.





**“... available, preserved, documented,  
and fairly credited”**



# What do you mean “Credit for my Data”?

- Research data are an **important scientific contribution** and stand on their own as a research output.
- You (and other researchers) can **cite the data you produced, and you get credit.**
- Institutions and societies are adjusting Promotion and Tenure, Honors and Awards to **recognize the value** of well-preserved and usable datasets.



# What does citing my data do for me?

- Your research is **easier to evaluate** by others (including peer reviewers).
- Your work can be **discovered in different ways** than just through your paper.
- Your data will be **preserved** as part of the scientific record and **linked** to both you and your publication. (not true for supplemental information)



**And importantly...**

**When you cite your data, your publications are more likely to be cited by others.**

**Potentially as much as 25%.**

Colavizza G, Hrynaszkiewicz I, Staden I, Whitaker K, McGillivray B (2020) The citation advantage of linking publications to research data. PLoS ONE 15(4): e0230416. <https://doi.org/10.1371/journal.pone.0230416>



**When you say “cite my data in my paper”,  
what does that mean?**

Data citations for your research are placed in the  
Reference Section of your paper.



# AGU Data Leadership – Strategic Direction

## Journal Guidance with support from Repositories

### COPDESS (2014)

### Enabling FAIR Data (2017)

**Focus:** Data supporting publication is preserved in a trusted, community-accepted repository and cited in the paper”

## Researcher Guidance

### PARSEC (2019)

**International Team:** Brazil, Japan, France, UK, Australia, USA

**Partners:** ORCID, RDA, ESIP, WDS, TNC, and more

**Focus:** Researcher-oriented guidance that improved data management practices.

## Citations and Credit

### AGU NSF PAR 2.0 (2020)

**Partners:** CHORUS, Dryad, ESIP, Wiley

**Focus:** All papers from NSF grants have proper data citations. Expanding to all papers.





# Thank you

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