

# Best ways to let others know how to cite your research software

## Increase citations for your code

Cite it when YOU use it <--- Seriously!

Release it so others can use it

Assign it a license so others know how they can use your code

Use a standard format to specify how you want your code cited

Make your citation preference clearly visible and easy to find

Register your code with the Astrophysics Source Code Library (ASCL ascl.net)

Include a *software* section in your research papers, and list your own software there (in addition to citing it with a formal citation)

## Standard formats for specifying citation

Codemeta.json and CITATION.cff are two standard formats for letting others know how you want your software cited

### CITATION.cff

- YAML file; is easy for humans to create and read
- Contains only the information needed for citation
- Should be placed in repo root directory

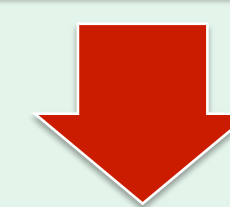
### codemeta.json

- JSON file; is easy for machines to use and re-use
- Contains information needed for citation
- Also contains additional information useful to software archives and indexers
- Should be placed in repo root directory

Submit code to ASCL



Receive ASCL ID



Generate template metadata file



Edit metadata file



Add metadata file to code repo root directory



Let everyone know how to cite your code!

The ASCL works with code repositories and registries in other disciplines to enable better software citation through FORCE11 and other organizations.

Registries in fields such as biology, geophysics, and computational modeling will soon be offering metadata files to their software authors for use on code download sites.

## Use the ASCL to get started!

The ASCL generates CITATION.cff and codemeta.json template metadata files for its entries to ease adoption of these files

- Entries must have assigned ASCL IDs
- Template generation work best when ASCL lists a preferred citation for the code
- The resulting file is intended to be a *starting* point and should be edited as needed by software author

## Generate CITATION.cff file

Add */CITATION.cff* to ASCL entry URL  
i.e., <https://ascl.net/1911.024/CITATION.cff>

```
cff-version: 1.1.0
message: "Please cite the following works when using this software:
https://ui.adsabs.harvard.edu/abs/2019ascl.soft11024W"
authors:
- family-names: Wilson
  given-names: Robert W.
- family-names: Pound
  given-names: Marc W.
- family-names: Stark
  given-names: Antony A.
- family-names: & others
  given-names:
title: "comb: Spectral line data reduction and analysis package"
version: PLACEHOLDER
date-released: PLACEHOLDER
identifiers:
- type: "ascl-id"
  value: "1911.024"
- type: "doi"
  value: PLACEHOLDER
- type: "bibcode"
  value: "2019ascl.soft11024W"
abstract: "comb is a single-dish radio astronomy spectral line data
```

## Generate codemeta.json file

Add */codemeta.json* to ASCL entry URL  
i.e., <https://ascl.net/1911.024/codemeta.json>

```
@context: "https://doi.org/10.5063/schema/codemeta-2.0"
@type: "SoftwareSourceCode"
name: "comb: Spectral line data reduction and analysis package"
description: "comb is a single-dish ra... the code is available."
identifier: "ascl:1911.024"
author: [...]
citation: "https://ui.adsabs.harvard.edu/abs/2019ascl.soft11024W"
relatedLink: [...]
codeRepository: [...]
version: "PLACEHOLDER: Add version here"
license: "PLACEHOLDER: Add license.../licenses/MIT.html) here"
```

## Authors and acknowledgements

Alice Allen, *Astrophysics Source Code Library/University of Maryland, College Park*; Robert Nemiroff, *Michigan Technological University*; P. Wesley Ryan, *Astrophysics Source Code Library*; Judy Schmidt, *Astrophysics Source Code Library*; Peter Teuben, *University of Maryland, College Park*

The ASCL thanks the Heidelberg Institute for Theoretical Studies and NASA for financial support.