The MARC Initiative
A proposed pilot project with AAS Journals
Scientists need to be able to get at the data that result in science both to *reproduce* results and produce *new* results

“non-reproducible single occurrences are of no significance to science”

–Karl Popper, *The Logic of Scientific Discovery*, 1934
We searched MAST for HST WFPC2 or WFC3 coeval Hα and [O iii] images of PNe available by March 2013. This search yielded Hα and [O iii] images for 103 PNe obtained through the F656N and F502N filters, respectively.

We present a catalogue of photometric and structural properties of 228 nuclear star clusters (NSCs) in nearby late-type disc galaxies. These new measurements are derived from a homogeneous analysis of all suitable Wide Field Planetary Camera 2 (WFPC2) images in the Hubble Space Telescope (HST) archive.
At Space Telescope there is 1 FTE spent trying to piece this all together; without the authors it’s hard!

It might be possible to track down some of the specific datasets for this paper, but it would be very time consuming with possibly little payoff. I’m tagging as impossible for now. –Sara
A “Solution” without MAST: DOI or data

DOIs: a broadly used, permanent, citable, URL (Basically)

Harvard Dataverse Network > CIA Dataverses

Dataverses

Studies

Recent Releases

Harvard Dataverse

Zenodo

Recent Uploads

Using GitHub?

New to ZENODO?

Research, Shared.

Read more about features and benefits.

Zenodo is an open dependable home for the long-
tack of scientific, enabling researchers to share and
preserve any research outputs in any size, any format
and from any science.
Places similar to STScI have DOI’ed their own content: it works, but no one uses it!
The Problem: Without significant encouragement authors won’t link data in their papers

We Astronomers are Lazy*

* [citation needed]
The MARC Initiative
connecting the AAS Journals to MAST
We can construct a simple (mock) workflow for AAS Journals, STScI/MAST, and authors:

Robot

ST MAST Staff

AAS Staff

Author

Does accepted paper text script search trigger protocol?

Yes

ST Staff: Does it actually need a MAST DOI?

Yes

E-mail from AAS to Author, cc: ST Staff: Please get a DOI from MAST

Author uses MAST to generate DOI, replies with DOI to ST, AAS

ST Staff: Assist Author

ST Staff: Is this the right DOI for this paper?

Nope

Yes

ST Staff: Confirm to AAS that DOI is correct

MARC complete
What might this look like for Authors at MAST?
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Questions for the MUG

- Would the ability to make a permanent reference to an arbitrary collection of data be useful to you beyond the context of the journals?

- Would being asked by ApJ/AJ to use MAST to make a link to your data be an undue burden?

- Are there other DOI / data-linking features that could be useful to MAST users?