

IHDEA WG: PIDs for Science

Nearly ten years after the beginning of the findability, accessibility, interoperability, and reusability (FAIR) movement, funders and journals increasingly require or recommend persistent identifiers (PID) for a growing variety of object types, ranging from data and observing platforms hosting the instruments collecting those data to the researchers themselves.

Heliophysicists aim to comply, but are now faced with a much richer and bewildering landscape of persistent identifiers and their supporting infrastructure services than before. Without recommendations or best practices to follow, Heliophysicists are left to guess their way forward. However, the full benefits of assigning persistent identifiers to these objects is only realized when similar types of objects have the same type of persistent identifiers, particularly in the same science area (e.g., [this presentation](#) at the IHDEA 2025 meeting). The purpose of this group is to develop standards, recommendations, and best practices for persistent identifiers for Heliophysics, in some cases also developing software in support of those goals.

How to Join

Does this interest you? Then please join us! Membership in the PIDs for Science working group (PIDS WG) is open to all. Just email the working group leads from your work email address and ask to join the IHDEA PIDs for Science WG. We will then add you to the group mailing list (ihdea_pidswg@cosmos.esa.int) and grant access to the relevant folders. Once IHDEA has adopted a code of conduct, that code of conduct will be automatically adopted by the PIDS working group and all of its members. Members not aligned with the code of conduct will be considered for removal.

Hope to see you soon!

Dr. Rebecca Ringuette ([ORCID](#))

Dr. Joana S. Oliveira ([Email](#))

Long term goal

Develop recommendations on which persistent identifier (PID) is recommended for a given object type, including

- Datasets,
- Instruments,
- Observatories,
- People,
- Organizations (including funders),
- Software,
- Software environments,

And other objects that are part of the research infrastructure in Heliophysics.

Recommendations will be based on

- Relevant FAIR characteristics of the persistent identifier,

- Recommendations and developments in related working groups in the Research Data Alliance,
- Current usage and interoperability support in existing infrastructure, and
- Longevity of the infrastructure supporting the PID.

For object types with lacking infrastructure support for creating the recommended PID, this working group may choose to partner with interested members to develop that infrastructure for use by the IHDEA community. All software developed for this purpose will be developed openly on GitHub or a similar service with an Apache 2.0, MIT, or BSD-3-Clause license to enable open reuse by others in the community, preferably in Python.

Initial Goals

Develop recommendations on what persistent identifier is to be used in Heliophysics for datasets and instruments. Given the high number of SPASE records for these objects, the group will also develop and ideally implement in Python a mapping from SPASE to the metadata model used by the selected persistent identifier for use by data repositories and other interested groups. Then, the working group will also develop recommendations for observatories, people and organizations.

Deliverables: PID Recommendations

PID recommendations will include the following sections:

- An analysis of the relevant FAIR characteristics of the persistent identifier, including global uniqueness;
- A description of recommendations and developments in related working groups in the Research Data Alliance;
- Current usage statistics and at least one example of interoperability support in existing infrastructure if one exists;
- Expected longevity of the infrastructure supporting the PID;
- Known costs associated with assigning the PID to an object;
- A comparison with other PIDs that were considered by the group, including why this one is recommended compared to the others, or whether the group was unanimous in its support of this PID; and
- Examples of existing usage in Heliophysics for the object type, if any.

Recommendation Development and Voting

The recommendation will be developed openly with all working group members in a dedicated folder on Google Drive. Four stages of development are expected:

- “Under Development” - open development stage, major changes expected;
- “Draft” - discussion stage, minor changes expected, discussion in at least two meetings is required;
- “Under Review” - voting stage, no changes allowed; and
- “Issued” - final approved stage, no changes allowed.

Any registered member of the working group is allowed to vote on any recommendation of interest. A registered member is any member on the mailing list. A two-thirds vote of “yes” by those participating in the voting is required for approval by the working group. “Abstain” votes are not counted. All votes will be held asynchronously over a period of at least two weeks. Recommendations not receiving a passing vote can re-enter the “Draft” phase until another vote is desired. Once the recommendation has passed a vote, the recommendation will then proceed to undergo the relevant formal process for IHDEA.

Meetings and Communication

Meetings will be held monthly on Mondays at 11a ET / 15:00 UTC time and will be announced ahead of time via the email list with a link to the meeting notes. The agenda for the meeting will be made available in the meeting notes. A short summary of the meeting will be sent out afterwards with any voting reminders and related links included. Members may request an addition to the agenda at any time before the meeting, subject to the discretion of the working group leads.