

Understanding the solar radio emission processes from the Sun to Earth Acronym: UnderRadioSun

Research Data Summary

List and describe all datasets or research materials that you plan to generate/collect or reuse during your research project. For each dataset or data type (observational, experimental etc.), provide a short name & description (sufficient for yourself to know what data it is about), indicate whether the data are newly generated/collected or reused, digital or physical, also indicate the type of the data (the kind of content), its technical format (file extension), and an estimate of the upper limit of the volume of the data.

Dataset name / ID	Description	New or reuse	Digital or Physical data	Data Type	File format	Data volume	Physical volume
		Indicate: <i>N(ew data) or E(xisting data)</i>	Indicate: D(igital) or P(hysical)	Indicate: Audiovisual Images Sound Numerical Textual Model Software Other (specify)		Indicate: <1GB <100GB <1TB <5TB >5TB NA	
Codes	Numerical codes to conduct simulations	N	D	SO	.txt, .f90, .cpp	<1GB	
Simulations	Files containing results from simulations	N	D	N	.h5, .vtu, .vtk	>5TB	
Observations	Files containing observational results	N	D	N	.txt, .dat	<100GB	

If you reuse existing data, please specify the source, preferably by using a persistent identifier (e.g. DOI, Handle, URL etc.) per dataset or data type:

N/A

Are there any ethical issues concerning the creation and/or use of the data (e.g. experiments on humans or animals, dual use)? If so, refer to specific datasets or data types when appropriate and provide the relevant ethical approval number.

- No

Will you process personal data? If so, please refer to specific datasets or data types when appropriate and provide the KU Leuven or UZ Leuven privacy register number (G or S number).

- No

Does your work have potential for commercial valorization (e.g. tech transfer, for example spin-offs, commercial exploitation, ...)? If so, please comment per dataset or data type where appropriate.

- No

Do existing 3rd party agreements restrict exploitation or dissemination of the data you (re)use (e.g. Material or Data transfer agreements, Research collaboration agreements)? If so, please explain in the comment section to what data they relate and what restrictions are in place.

- No

Are there any other legal issues, such as intellectual property rights and ownership, to be managed related to the data you (re)use? If so, please explain in the comment section to what data they relate and which restrictions will be asserted.

- No

Documentation and Metadata

Clearly describe what approach will be followed to capture the accompanying information necessary to keep data understandable and usable, for yourself and others, now and in the future (e.g. in terms of documentation levels and types required, procedures used, Electronic Lab Notebooks, README.txt files, codebook.tsv etc. where this information is recorded).

README.txt files will be created for each code and for each simulation/observation dataset.

Will a metadata standard be used to make it easier to find and reuse the data?

If so, please specify which metadata standard will be used.

If not, please specify which metadata will be created to make the data easier to find and reuse.

- No

Data Storage & Back-up during the Research Project

Where will the data be stored?

- Other (specify below)

Local hard drives, VSC facilities, KUL RDR

How will the data be backed up?

- Other (specify below)

Multiple copies will be created on each storage device/server.

Is there currently sufficient storage & backup capacity during the project?

If no or insufficient storage or backup capacities are available, explain how this will be taken care of.

- Yes

The indicated facilities have more than enough storage for unlimited time.

How will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?

The facilities indicated are secured by ssh restricted access and not accessible by external, unauthorized people, unless specifically allowed by the PIs.

What are the expected costs for data storage and backup during the research project? How will these costs be covered?

N/A.

Data Preservation after the end of the Research Project

Which data will be retained for 10 years (or longer, in agreement with other retention policies that are applicable) after the end of the project?

In case some data cannot be preserved, clearly state the reasons for this (e.g. legal or contractual restrictions, storage/budget issues, institutional policies...).

- All data will be preserved for 10 years according to KU Leuven RDM policy

All data will be retained for ten years. After that, they may be deleted or kept indefinitely depending on the need.

Where will these data be archived (stored and curated for the long-term)?

- Other (specify below)
- KU Leuven RDR

Software is archived in online repositories for unlimited duration. Simulation/observational data may be kept on physical hard drives if needed.

What are the expected costs for data preservation during the expected retention period? How will these costs be covered?

N/A.

Data Sharing and Reuse

Will the data (or part of the data) be made available for reuse after/during the project?

Please explain per dataset or data type which data will be made available.

- Yes, as restricted data (upon approval, or institutional access only)

Codes will be on online repositories, accessible upon request. Data will be stored on the KUL RDR in the long term, and accessible upon request.

If access is restricted, please specify who will be able to access the data and under what conditions.

The PIs will have access to the data. External members (hirees, collaborators) may be given access if needed for the project and/or upon reasonable request.

Are there any factors that restrict or prevent the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)?

Please explain per dataset or data type where appropriate.

- No

Where will the data be made available?

If already known, please provide a repository per dataset or data type.

- KU Leuven RDR (Research Data Repository)
- Other data repository (specify below)
- Other (specify below)

GitHub for codes (to be created).

KU Leuven RDR for data.

When will the data be made available?

- Upon publication of research results
- Other (specify below)

Immediately after publication and upon request also while it is being produced.

Which data usage licenses are you going to provide?

If none, please explain why.

- CC-BY 4.0 (data)
- GNU GPL-3.0 (code)

Do you intend to add a persistent identifier (PID) to your dataset(s), e.g. a DOI or accession number? If already available, please provide it here.

- No

What are the expected costs for data sharing? How will these costs be covered?

N/A

Responsibilities

Who will manage data documentation and metadata during the research project?

The PIs will collaboratively maintain and document the data.

Who will manage data storage and backup during the research project?

The PIs will collaboratively manage data storage.

Who will manage data preservation and sharing?

The PIs will collaboratively handle preservation and sharing.

Who will update and implement this DMP?

All PIs collaboratively.