DMP title

Project Name My plan (FWO DMP) - DMP title
Principal Investigator / Researcher Jon Sundqvist
Institution KU Leuven

1. General Information
Name applicant
Jon Sundqvist

FWO Project Number & Title
Project number: G077822N
Title: Model Atmospheres of Massive Stars with Winds - Finally Toward 3D

Affiliation

- KU Leuven

2. Data description
Will you generate/collect new data and/or make use of existing data?

- Generate new data
- Reuse existing data

Describe in detail the origin, type and format of the data (per dataset) and its (estimated) volume. This may be easiest in a table (see example) or as a data flow and per WP or objective of the project. If you reuse existing data, specify the source of these data. Distinguish data types (the kind of content) from data formats (the technical format).
Content: New numerical data sets from simulations. Existing data sets from previous astronomical simulations and observations. Multimedia videos will be created from simulations.
Format: Numerical data will be stored in databases. Mode of data collection: Computer generated simulated data. Archival data from astronomical observations.
The data are digital, and the observations are already processed whereas simulation data will come both in raw format but also in processed (e.g. in forms of images, movies etc).

3. Legal and ethical issues
Will you use personal data? If so, shortly describe the kind of personal data you will use. Add the reference to your file in KU Leuven's Register of Data Processing for Research and Public Service Purposes (PRET application). Be aware that registering the fact that you process personal data is a legal obligation.

- No

Privacy Registry Reference:
Short description of the kind of personal data that will be used:

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, add the reference to the formal approval by the relevant ethical review committee(s)

- No

Does your work possibly result in research data with potential for tech transfer and valorisation? Will IP restrictions be claimed for the data you created? If so, for what data and which restrictions will be asserted?

- No

Do existing 3rd party agreements restrict dissemination or exploitation of the data you (re)use? If so, to what data do they relate and what restrictions are in place?

- No

4. Documentation and metadata

What documentation will be provided to enable reuse of the data collected/generated in this project?

Raw simulation data will be collected for simulations, including text files describing what the data repreesent, how it was generated, and how it may be used. This data will also contain the input files necessary to re-run the simulation and as such reproduce the simulated data. The data will be clearly organised in folders and sub-foleders following standard practise, with clear instructions for the user how to orient themselves.

Will a metadata standard be used? If so, describe in detail which standard will be used. If no, state in detail which metadata will be created to make the data easy/easier to find and reuse.

- No

5. Data storage and backup during the FWO project

Where will the data be stored?

Simulation data will be stored at our data repository archives and computer clusters at IvS KU Leuven, and published data will be available for the public via the world wide web. Also, following the open source philosophy of MPI-AMRVAC (www.amrvac.org), maintained by the CMPA (=Computational Methods for Astrophysical Applications) institute at KU Leuven, all new computer modules developed for MPI-AMRVAC within the scope of this project will be made available for the public.

How is backup of the data provided?

Data will be store on IvS server using our automatic back-up procedures.

Is there currently sufficient storage & backup capacity during the project? If yes, specify concisely. If no or insufficient storage or backup capacities are available then explain how this will be taken care of.

- Yes

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

Total estimated costs for data storage (during and after project finalisation), see 6., are 3000 Euro. All data will be stored (short and log term) on IvS servers.

Data security: how will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?

There is no sensitive (e.g. personal) data in project. For new scientific data that will not be shared with the piublic, there are suitable IvS servers that are only accesible with an institute login.

6. Data preservation after the FWO project

Which data will be retained for the expected 5 year period after the end of the project? In case only a selection of the data can/will be preserved, clearly state the reasons for this (legal or contractual restrictions, physical preservation issues, ...).

Simulation data will be stored at our data repository archives and computer clusters at IvS KU Leuven, and published data will be available for the public via the world wide web. Also, following the open source philosophy of MPI-AMRVAC (www.amrvac.org), maintained by the CMPA (=Computational Methods for Astrophysical Applications) institute at KU Leuven, all new computer modules developed for MPI-AMRVAC within the scope of this project will be made available for the public.

Where will the data be archived (= stored for the longer term)?

Data to be saved long-term will again be stored on appropriate IvS server.

What are the expected costs for data preservation during the retention period of 5 years? How will the costs be covered?

Storage available at IvS server, where additional storage may need bought. Total esimated costs for data storage: 3000 Euro.

7. Data sharing and reuse

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

- No

Which data will be made available after the end of the project?

All published data will be made available. In addition, codes suitable for re-creating simullations will be made available according to answers to previous points.

Where/how will the data be made available for reuse?

- In an Open Access repository

When will the data be made available?

- Upon publication of the research results

Who will be able to access the data and under what conditions?

Data (and codes) will be made available through project website, mpi-amrvac homepage, and public domains such as github.

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

No additional costs are expecred.

8. Responsibilities

Who will be responsible for data documentation & metadata?

The PI (Prof. Jon Sundqvist), the predoctoral reseracher, and the technical staff at IvS.

Who will be responsible for data storage & back up during the project?

The PI (Prof. Jon Sundqvist), the predoctoral reseracher, and the technical staff at IvS.

Who will be responsible for ensuring data preservation and reuse ?

The PI (Prof. Jon Sundqvist), the predoctoral reseracher, and the technical staff at IvS.

Who bears the end responsibility for updating & implementing this DMP?

The PI bears the end responsibility of updating & implementing this DMP.