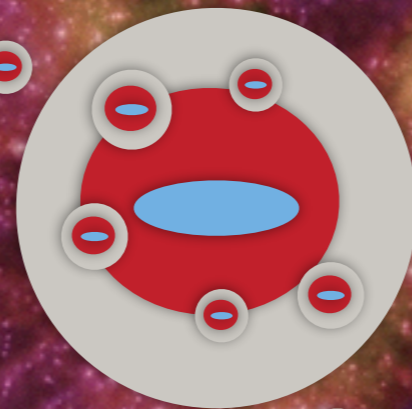


Downloading and Compiling L-Galaxies



Downloading and Compiling L-Galaxies



Max-Planck-Institut für
Astrophysik

L-Galaxies, Munich Galaxy Formation Model Running the Model

workshop

database

general public

contact

Home

Running the Model

Model Description

Figures & Data

Projects & People

1. Files needed to run the L-Galaxies galaxy formation model

Download the source code for the model from the L-Galaxies GitHub Repository (Download ZIP button):

- [LGalaxies Repository](#)

Download the dark matter merger trees into `./MergerTrees/` contained in the source code folder:

- Millennium merger trees (10/512 of the volume): [MR_MergerTrees.tar](#)
- Representative sample of trees for MCMC mode: [MCMC_MergerTrees.tar](#)

Untar both files: `"tar -xvf MR_MergerTrees.tar"`, `"tar -xvf MCMC_MergerTrees.tar"`. Two folders, MR and MCMC, should be created.

Download the Stellar Population Synthesis tables, needed for photometry, into the root of the directory containing the source code:

- [SpecPhotTables.tar](#)

Untar the file: `"tar -xvf SpecPhotTables.tar"`. A folder, SpecPhotTables, should be created.

The source code for the model also contains various scripts to analyse its output:

- Idl script to read the model output and produce a few simple plots: [/AuxCode/Idl/plots_public_release.pro](#)
- Python script to read the model output and produce a few simple plots: [/AuxCode/Python/plots.py](#)
- Idl script to analyse the model output in MCMC mode: [/AuxCode/Idl/mcmc_read_chains.pro](#)

In the scripts to analyse the model outputs, its predictions are compared to a number of observational datasets:

- [data.tar](#)

These should be extracted in the corresponding Python or IDL directory.

Downloading and Compiling L-Galaxies



Max-Planck-Institut für
Astrophysik

L-Galaxies, Munich Galaxy Formation Model Running the Model

workshop

database

general public

contact

Home

Running the Model

Model Description

Figures & Data

Projects & People

1. Files needed to run the L-Galaxies galaxy formation model

Download the source code for the model from the L-Galaxies GitHub Repository (Download ZIP button):

- [LGalaxies Repository](#)

Download the dark matter merger trees into `./MergerTrees/` contained in the source code folder:

- Millennium merger trees (10/512 of the volume): [MR_MergerTrees.tar](#)
- Representative sample of trees for MCMC mode: [MCMC_MergerTrees.tar](#)

Untar both files: `"tar -xvf MR_MergerTrees.tar"`, `"tar -xvf MCMC_MergerTrees.tar"`. Two folders, MR and MCMC, should be created.

Download the Stellar Population Synthesis tables, needed for photometry, into the root of the directory containing the source code:

- [SpecPhotTables.tar](#)

Untar the file: `"tar -xvf SpecPhotTables.tar"`. A folder, SpecPhotTables, should be created.

The source code for the model also contains various scripts to analyse its output:

- Idl script to read the model output and produce a few simple plots: [/AuxCode/Idl/plots_public_release.pro](#)
- Python script to read the model output and produce a few simple plots: [/AuxCode/Python/plots.py](#)
- Idl script to analyse the model output in MCMC mode: [/AuxCode/Idl/mcmc_read_chains.pro](#)

In the scripts to analyse the model outputs, its predictions are compared to a number of observational datasets:

- [data.tar](#)

These should be extracted in the corresponding Python or IDL directory.

Downloading and Compiling L-Galaxies



L-Galaxies, Munich Galaxy Formation Model Running the Model

workshop

database

general public

contact

Home

Running the Model

Model Description

Figures & Data

Projects & People

1. Files needed to run the L-Galaxies galaxy formation model

Download the source code for the model from the L-Galaxies GitHub Repository (Download ZIP button):

- [LGalaxies Repository](#)

Download the dark matter merger trees into `./MergerTrees/` contained in the source code folder:

- Millennium merger trees (10/512 of the volume): [MR_MergerTrees.tar](#)
- Representative sample of trees for MCMC mode: [MCMC_MergerTrees.tar](#)

Untar both files: `"tar -xvf MR_MergerTrees.tar"`, `"tar -xvf MCMC_MergerTrees.tar"`. Two folders, MR and MCMC, should be created.

Download the Stellar Population Synthesis tables, needed for photometry, into the root of the directory containing the source code:

- [SpecPhotTables.tar](#)

Untar the file: `"tar -xvf SpecPhotTables.tar"`. A folder, SpecPhotTables, should be created.

The source code for the model also contains various scripts to analyse its output:

- Idl script to read the model output and produce a few simple plots: [/AuxCode/Idl/plots_public_release.pro](#)
- Python script to read the model output and produce a few simple plots: [/AuxCode/Python/plots.py](#)
- Idl script to analyse the model output in MCMC mode: [/AuxCode/Idl/mcmc_read_chains.pro](#)

In the scripts to analyse the model outputs, its predictions are compared to a number of observational datasets:

- [data.tar](#)

These should be extracted in the corresponding Python or IDL directory.

Downloading and Compiling L-Galaxies



L-Galaxies, Munich Galaxy Formation Model Running the Model

workshop

database

general public

contact

Home

Running the Model

Model Description

Figures & Data

Projects & People

1. Files needed to run the L-Galaxies galaxy formation model

Download the source code for the model from the L-Galaxies GitHub Repository (Download ZIP button):

- [LGalaxies Repository](#)

Download the dark matter merger trees into `./MergerTrees/` contained in the source code folder:

- Millennium merger trees (10/512 of the volume): [MR_MergerTrees.tar](#)
- Representative sample of trees for MCMC mode: [MCMC_MergerTrees.tar](#)

Untar both files: `"tar -xvf MR_MergerTrees.tar"`, `"tar -xvf MCMC_MergerTrees.tar"`. Two folders, MR and MCMC, should be created.

Download the Stellar Population Synthesis tables, needed for photometry, into the root of the directory containing the source code:

- [SpecPhotTables.tar](#)

Untar the file: `"tar -xvf SpecPhotTables.tar"`. A folder, SpecPhotTables, should be created.

The source code for the model also contains various scripts to analyse its output:

- Idl script to read the model output and produce a few simple plots: [/AuxCode/Idl/plots_public_release.pro](#)
- Python script to read the model output and produce a few simple plots: [/AuxCode/Python/plots.py](#)
- Idl script to analyse the model output in MCMC mode: [/AuxCode/Idl/mcmc_read_chains.pro](#)

In the scripts to analyse the model outputs, its predictions are compared to a number of observational datasets:

- [data.tar](#)

These should be extracted in the corresponding Python or IDL directory.

Downloading and Compiling L-Galaxies



L-Galaxies, Munich Galaxy Formation Model Running the Model

[workshop](#)[database](#)[general public](#)[contact](#)[Home](#)[Running the Model](#)[Model Description](#)[Figures & Data](#)[Projects & People](#)

1. Files needed to run the L-Galaxies galaxy formation model

Download the source code for the model from the L-Galaxies GitHub Repository (Download ZIP button):

- [LGalaxies Repository](#)

Download the dark matter merger trees into `./MergerTrees/` contained in the source code folder:

- Millennium merger trees (10/512 of the volume): [MR_MergerTrees.tar](#)
- Representative sample of trees for MCMC mode: [MCMC_MergerTrees.tar](#)

Untar both files: `"tar -xvf MR_MergerTrees.tar"`, `"tar -xvf MCMC_MergerTrees.tar"`. Two folders, MR and MCMC, should be created.

Download the Stellar Population Synthesis tables, needed for photometry, into the root of the directory containing the source code:

- [SpecPhotTables.tar](#)

Untar the file: `"tar -xvf SpecPhotTables.tar"`. A folder, SpecPhotTables, should be created.

The source code for the model also contains various scripts to analyse its output:

- Idl script to read the model output and produce a few simple plots: [/AuxCode/Idl/plots_public_release.pro](#)
- Python script to read the model output and produce a few simple plots: [/AuxCode/Python/plots.py](#)
- Idl script to analyse the model output in MCMC mode: [/AuxCode/Idl/mcmc_read_chains.pro](#)

In the scripts to analyse the model outputs, its predictions are compared to a number of observational datasets:

- [data.tar](#)

These should be extracted in the corresponding Python or IDL directory.

Downloading and Compiling L-Galaxies



2. Compiling the code

To compile the code simply run `make` on the command line. This will follow compiling instructions from 3 Makefiles:

3 Makefiles

- `Makefile`: standard Makefile listing all the object files. Here you can switch between standard or MCMC mode (by choosing between `My_Makefile_options` or `My_Makefile_options_MCMC`). You will also need to choose a `SYSTYPE`. This variable links to library paths defined in `Makefile_compilers`. You can try to use one of the systems available, but you will likely have to create your own (`SYSTYPE="darwin"` might work for MACs).
- `My_Makefile_options` (or `My_Makefile_options_MCMC`): lists the makefile options that you want to be compiled (`Makefile_options` lists all the available options and is not used).
- `Makefile_compilers`: libraries for different systems are listed here. You can add your own by defining a new `SYSTYPE`.

Try running `make`. If there are any compilation errors, define a new `SYSTYPE` variable

Downloading and Compiling L-Galaxies

in Makefile

```
# Choose your system type (needs to match an entry in Makefile_compilers)
SYSTYPE = "COSM"
include Makefile_compilers
```

in Makefile_compilers

```
ifeq ($(SYSTYPE),"Darwin")
CC      = mpicc -g -O2 -Wall
OPTIMIZE =
GSL_INCL = -I/sw/include -I/opt/local/include
GSL_LIBS = -L/sw/lib | -L/opt/local/lib
endif
```