



Thank you for visiting our GALEV server at www.galev.org

If you use the resulting models in your publication, please acknowledge the authors by citing:

**Kotulla, Fritze, Weilbacher & Anders 2008
"GALEV evolutionary synthesis models on the web"**

If you have any question about your model and/or suggestions how we can improve our service to make it more valuable for your research please write us an email to

admin@galev.org

This ReadMe file gives a short overview over the contents of each file that came with the tar-file you just downloaded.

1 Configuration files

galev.conf

This is the parameter file used to run GALEV. It contains all parameters you entered on the webpage

<YourModelName>_galev.log

GALEV log file containing the screen output of GALEV. Please check this file carefully, since this is the only place where you might errors or warnings reported during execution.

<YourModelName>_cocos.log

Similar to the log file described above, cocos.log contains information on the chosen cosmology, the filters used and applied corrections to match the Virgo magnitudes.

2 Time evolution

<YourModelName>_spec.dat

This file contains the integrated spectrum of your model. Its content is as follows:

1st line: Number of timesteps and wavelength points
2nd line: Ages of each time steps

All following lines:

Column 1: Running counter for the wavelength point
Column 2: Wavelength in angstroms
Column 3: Integrated spectrum after 1st timestep
Columns 4...N: Integrated spectrum after (N-3)th time step

<YourModelName>_stat.dat

Contains a lot of diagnostic data obtained during the modelling process. There is one line per time step, and the content of each line is as follows:

1st column: Age of the galaxy after this timestep
2nd column: Remaining gas mass
3rd column: Stellar mass
4th column: Star formation rate
5th column: Logarithm of gaseous metallicity
6th column: Ejected mass of gas during the timestep (in solar masses per year)
7th column: Ejected mass in heavy elements (in solar masses per year)
8th column: ID of isochrone used for stars born during the timestep
9th column: Duration of timestep (in years)
10th column: Logarithm of hydrogen ionizing photon flux ($E > 13.6\text{eV}$ or $\lambda < 912\text{\AA}$, in photons per second)
11th column: Equivalent width of the $\text{H}\beta$ emission line

<YourModelName>_color_###.dat

Depending on your choice of extinction there will be multiple <YourModelName>_color_###.dat files, one for each extinction step. xxx_color_N.dat (where N ranges from 0 upwards) hence contains the data for $E(B-V) = N \times (\text{your specified step width in } E(B-V))$.

1st column: Age of the galaxy
2.-Nth column: Absolute magnitude at this age

3 Redshift evolution

<YourModelName>_rstat.dat

This file contains an extended version of the file <YourModelName>_stat.dat described above.

- | | |
|-------------|--|
| 1st column: | Numerical redshift ID, starting at 0 |
| 2nd column: | Age of the galaxy |
| 3rd column: | Redshift corresponding to this galaxy age (this depends on the cosmological parameters and in particular the formation redshift) |
| 4th column: | Bolometric distance modulus to this redshift |

All remaining columns contain the same information as the file <YourModelName>_stat.dat (see above for more details).

<YourModelName>_rspec.dat

This file is by far the largest output file. It contains all redshifted spectra for each extinction step and both with and without intergalactic attenuation.

Its content is organized into blocks, one for each redshift. Each block starts with two comment lines (starting with a #) containing the redshift of the respective block and some column headers.

Within each block data each line contains one wavelength point.

- | | |
|-------------|---|
| 1st column: | Wavelength |
| 2nd column: | Flux at this wavelength, without attenuation and extinction |
| 3rd column: | Flux with attenuation, but without extinction |

If you requested extinction then there are two more columns for each step in extinction:

- even number columns: Flux without attenuation
- odd number columns: Flux with attenuation.

<YourModelName>_absmag.dat

Contains absolute magnitudes as function of redshift. The output is organized in blocks, one block for each extinction step. The individual blocks are separated by several blank lines, and each block begins with a line giving the extinction:

#@E <extinction for this block>

Inside each block there is one line for each redshift:

- | | |
|-----------------|---|
| 1st column: | Redshift of this line |
| 2nd - Nth col.: | Absolute magnitude for the (N-1)th filter |

<YourModelName>_appmag.dat

Contains apparent magnitudes without intergalactic attenuation as function of redshift. The file structure is the same as in <YourModelName>_absmag.dat.

<YourModelName>_attmag.dat

Contains apparent magnitudes with intergalactic attenuation as function of redshift. The file structure is the same as in <YourModelName>_absmag.dat.

<YourModelName>_ecorr.dat

Contains evolutionary corrections as function of redshift. The file structure is the same as in <YourModelName>_absmag.dat.

<YourModelName>_kcorr.dat

Contains cosmological corrections without intergalactic attenuation as function of redshift. The file structure is the same as in <YourModelName>_absmag.dat.

<YourModelName>_attkcorr.dat

Contains cosmological corrections with intergalactic attenuation as function of redshift. The file structure is the same as in <YourModelName>_absmag.dat.