

Geneva Model

To find the data the link is :

<https://www.unige.ch/sciences/astro/evolution/fr/recherche/geneva-grids-stellar-evolution-models/>

In the webpage, we can see grids of Geneva's Stellar Evolution Models, when the simulation will be finished we can add the rotation but it is better to start with the basic :

Grids of Geneva's Stellar Evolution Models

The available grids are summarized in the table below. The data can be extracted under the column Grid, which points to the CDS data center in Strasbourg. The publications related to each grid can be found under the column Paper. They do NOT include the data tables, except for Schaller et al. 1992.

Grid	Z	X	Y	Mass loss	Paper	Notes
PMS	0.001, 0.02	Pre-Main Sequence			Bernasconi & Maeder 1996, Bernasconi 1996	Canonical and accretion scenarios available
I	0.001	0.756	0.243	standard	Schaller et al. 1992	
I	0.020	0.680	0.300	standard	Schaller et al. 1992	
II	0.008	0.728	0.264	standard	Schaerer et al. 1993	
III	0.004	0.744	0.252	standard	Charbonnel et al. 1993	
IV	0.040	0.620	0.340	standard	Schaerer et al. 1993	
V	0.001-0.04	.	.	2 × standard	Meynet et al. 1994	M >= 12 Msun
VI	0.001, 0.02	Horizontal Branch			Charbonnel et al. 1996	0.8 <= M/Msun <= 1.7
VII	0.100	0.420	0.480	standard	Mowlavi et al. 1998	
VIII	0.001, 0.02	Low-mass stars			Charbonnel et al. 1998	0.4 <= M/Msun <= 1.0
CoStar	Combined interior + atmosphere (massive stars)				Schaerer et al. 1996a, Schaerer et al. 1996b, Schaerer 1996	spectra predictions

-I took the PMS VIII.

For that one need to click on the paper and we are redirected to this page :

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Title: Grids of stellar models. VIII. From 0.4 to 1.0 {M_{sun}} at Z=0.020 and Z=0.001, with the MHD equation of state
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Then, one click on « On-line Data »

- One choose the information that we need for the simulation

Show	Sort	Column	Clear	Constraint	Explain (UCD)
<input type="checkbox"/>	<input type="radio"/>	recno			Record number assigned by the VizieR team. Should Not be used for identification. (meta.record)
<input type="checkbox"/>	<input type="radio"/>	Tno		(char)	Number of table in the publication (meta.id , meta.dataset)
<input checked="" type="checkbox"/>	<input type="radio"/>	Mo		Msun	(ⁿ)Star initial mass (phys.mass)
<input checked="" type="checkbox"/>	<input type="radio"/>	Zo	0,02		(ⁿ)Star initial metallicity: 0.001 or 0.020 (phys.abund.Z)
<input type="checkbox"/>	<input type="radio"/>	O		(char)	O ifor model with overshooting (meta.note)
<input checked="" type="checkbox"/>	<input type="radio"/>	Md			(ⁿ)Mass loss in post-Main Sequence: 1 for standard mass loss rate, 2 for model with twice the standard mass loss rate (meta.note)
<input type="checkbox"/>	<input type="radio"/>	No			Number of selected point (meta.id)
<input checked="" type="checkbox"/>	<input type="radio"/>	Age		yr	Age (time.age)
<input checked="" type="checkbox"/>	<input type="radio"/>	Mass		solMass	Actual mass (phys.mass)
<input checked="" type="checkbox"/>	<input type="radio"/>	log(L)		[solLum]	log(luminosity Mass s.luminosity)
<input checked="" type="checkbox"/>	<input type="radio"/>	log(Te)		[K]	log(effective temperature) (phys.temperature.effective)

It can be interesting to have the abundance of different elements

ALL cols	Reset All	Clear	(n) indicates a possible blank or NULL column	(i) indexed column	Submit
<input checked="" type="checkbox"/>	<input type="radio"/>	Hs			H surface abundance (mass fraction) (phys.abund.Fe)
<input checked="" type="checkbox"/>	<input type="radio"/>	Hes			He surface abundance (mass fraction) (phys.abund.Y)
<input checked="" type="checkbox"/>	<input type="radio"/>	C12			¹² C surface abundance (mass fraction) (meta.note)
<input type="checkbox"/>	<input type="radio"/>	C13			¹³ C surface abundance (mass fraction) (meta.note)
<input type="checkbox"/>	<input type="radio"/>	N14			¹⁴ N surface abundance (mass fraction) (meta.note)
<input checked="" type="checkbox"/>	<input type="radio"/>	O16			¹⁶ O surface abundance (mass fraction) (meta.note)
<input type="checkbox"/>	<input type="radio"/>	O17			¹⁷ O surface abundance (mass fraction) (meta.note)
<input type="checkbox"/>	<input type="radio"/>	O18			¹⁸ O surface abundance (mass fraction) (meta.note)
<input checked="" type="checkbox"/>	<input type="radio"/>	Ne20			²⁰ Ne surface abundance (mass fraction) (meta.note)
<input type="checkbox"/>	<input type="radio"/>	Ne22			²² Ne surface abundance (mass fraction) (meta.note)
<input checked="" type="checkbox"/>	<input type="radio"/>	QCC			Core mass fraction (phys.mass)
<input checked="" type="checkbox"/>	<input type="radio"/>	log(Mdot)		[Msun/yr]	log(mass loss rate) (phys.mass.loss)
<input checked="" type="checkbox"/>	<input type="radio"/>	rhoc		[g/cm3]	log(central density) (arith.zp)

ALL cols	Reset All	Clear	(n) indicates a possible blank or NULL column	(i) indexed column	Submit
<input checked="" type="checkbox"/>	<input type="radio"/>	log(Tc)		[K]	log(central temperature) (arith.zp)
<input checked="" type="checkbox"/>	<input type="radio"/>	Hc			H central abundance (mass fraction) (phys.abund.Fe)
<input checked="" type="checkbox"/>	<input type="radio"/>	Hec			He central abundance (mass fraction) (phys.abund.Y)
<input type="checkbox"/>	<input type="radio"/>	C12c			¹² C central abundance (mass fraction) (phys.abund.em.wl.central)
<input type="checkbox"/>	<input type="radio"/>	C13c			¹³ C central abundance (mass fraction) (phys.abund.em.wl.central)
<input type="checkbox"/>	<input type="radio"/>	N14c			¹⁴ N central abundance (mass fraction) (phys.abund.em.wl.central)
<input type="checkbox"/>	<input type="radio"/>	O16c			¹⁶ O central abundance (mass fraction) (phys.abund.em.wl.central)
<input type="checkbox"/>	<input type="radio"/>	O17c			¹⁷ O central abundance (mass fraction) (phys.abund.em.wl.central)
<input type="checkbox"/>	<input type="radio"/>	O18c			¹⁸ O central abundance (mass fraction) (phys.abund.em.wl.central)
<input type="checkbox"/>	<input type="radio"/>	Ne20c			²⁰ Ne central abundance (mass fraction) (phys.abund.em.wl.central)
<input type="checkbox"/>	<input type="radio"/>	Ne22c			²² Ne central abundance (mass fraction) (phys.abund.em.wl.central)

- Then click on submit and a table appear with the html format

Click on unlimited data in the « Search Criteria »

max: unlimited
HTMLTable
☐ All columns
► Compute
Submit

- To download the data, instead of « HTML Table » choose «Tab-Seperated-Values ».