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)
☐	○	recno				Record number assigned by the VizieR team. Should Not be used for identification. (meta.record)
☐	○	Tno			(char)	Number of table in the publication (meta.id;meta.dataset)
☑	○	Mo			Msun	(n)Star initial mass (phys.mass)
☑	○	Zo	0,02			(n)Star initial metallicity: 0.001 or 0.020 (phys.abund.Z)
☑	○	O			(char)	**O** ifor model *with overshooting* (meta.note)
☑	○	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)
☐	○	No				Number of selected point (meta.id)
☑	○	Age			yr	Age (time.age)
☑	○	Mass			solMass	Actual mass (phys.mass)
☑	○	log(L)			[solLum]	log(luminosity Mass s.luminosity)
☑	○	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
☑	○	Hs					H surface abundance (mass fraction) (phys.abund.Fe)
☑	○	Hes					He surface abundance (mass fraction) (phys.abund.Y)
☑	○	C12					^{12}C surface abundance (mass fraction) (meta.note)
☐	○	C13					^{13}C surface abundance (mass fraction) (meta.note)
☐	○	N14					^{14}N surface abundance (mass fraction) (meta.note)
☑	○	O16					^{16}O surface abundance (mass fraction) (meta.note)
☐	○	O17					^{17}O surface abundance (mass fraction) (meta.note)
☐	○	O18					^{18}O surface abundance (mass fraction) (meta.note)
☑	○	Ne20					^{20}Ne surface abundance (mass fraction) (meta.note)
☐	○	Ne22					^{22}Ne surface abundance (mass fraction) (meta.note)
☑	○	QCC					Core mass fraction (phys.mass)
☑	○	log(Mdot)			[Msun/yr]		log(mass loss rate) (phys.mass.loss)
☑	○	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
☑	○	log(Tc)			[K]		log(central temperature) (arith.zp)
☑	○	Hc					H central abundance (mass fraction) (phys.abund.Fe)
☑	○	Hec					He central abundance (mass fraction) (phys.abund.Y)
☐	○	C12c					^{12}C central abundance (mass fraction) (phys.abund;em.wl.central)
☐	○	C13c					^{13}C central abundance (mass fraction) (phys.abund;em.wl.central)
☐	○	N14c					^{14}N central abundance (mass fraction) (phys.abund;em.wl.central)
☐	○	O16c					^{16}O central abundance (mass fraction) (phys.abund;em.wl.central)
☐	○	O17c					^{17}O central abundance (mass fraction) (phys.abund;em.wl.central)
☐	○	O18c					^{18}O central abundance (mass fraction) (phys.abund;em.wl.central)
☐	○	Ne20c					^{20}Ne central abundance (mass fraction) (phys.abund;em.wl.central)
☐	○	Ne22c					^{22}Ne central abundance (mass fraction) (phys.abund;em.wl.central)

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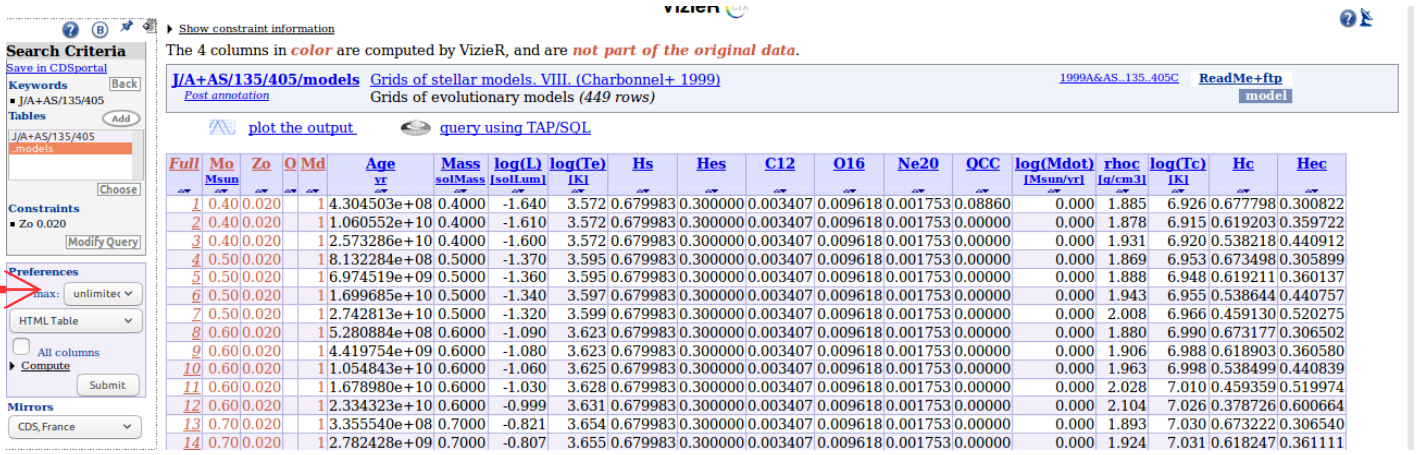

Full	Mo Msun	Zo	O	Md	Age yr	Mass solMass	log(L) [solLum]	log(Te) [K]	Hs	Hes	C12	O16	Ne20	QCC	log(Mdot) [Msun/yr]	rhoc [g/cm3]	log(Tc) [K]	Hc	Hec
1	0.40	0.020		1	4.304503e+08	0.4000	-1.640	3.572	0.679983	0.300000	0.003407	0.009618	0.001753	0.08860	0.000	1.885	6.926	0.677798	0.300822
2	0.40	0.020		1	1.060552e+10	0.4000	-1.610	3.572	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	1.878	6.915	0.619203	0.359722
3	0.40	0.020		1	2.573286e+10	0.4000	-1.600	3.572	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	1.931	6.920	0.538218	0.440912
4	0.50	0.020		1	8.132284e+08	0.5000	-1.370	3.595	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	1.869	6.953	0.673498	0.305899
5	0.50	0.020		1	6.974519e+09	0.5000	-1.360	3.595	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	1.888	6.948	0.619211	0.360137
6	0.50	0.020		1	1.699685e+10	0.5000	-1.340	3.597	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	1.943	6.955	0.538644	0.440757
7	0.50	0.020		1	2.742813e+10	0.5000	-1.320	3.599	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	2.008	6.966	0.459130	0.520275
8	0.60	0.020		1	5.280884e+08	0.6000	-1.090	3.623	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	1.880	6.990	0.673177	0.306502
9	0.60	0.020		1	4.419754e+09	0.6000	-1.080	3.623	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	1.906	6.988	0.618903	0.360580
10	0.60	0.020		1	1.054843e+10	0.6000	-1.060	3.625	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	1.963	6.998	0.538499	0.440839
11	0.60	0.020		1	1.678980e+10	0.6000	-1.030	3.628	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	2.028	7.010	0.459359	0.519974
12	0.60	0.020		1	2.334323e+10	0.6000	-0.999	3.631	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	2.104	7.026	0.378726	0.600664
13	0.70	0.020		1	3.355540e+08	0.7000	-0.821	3.654	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	1.893	7.030	0.673222	0.306540
14	0.70	0.020		1	2.782428e+09	0.7000	-0.807	3.655	0.679983	0.300000	0.003407	0.009618	0.001753	0.00000	0.000	1.924	7.031	0.618247	0.361111

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