HOW TO plot a simple graph from the Exoplanet Catalogue using TOPCAT

You are going to use topcat (Tool for OPerations on Catalogues And Tables) developed by Marc Taylor at Bristol University.

First click on “VO CONNECTION ON” (fig 1)
This will open TOPCAT and send the full catalogue using a Virtual Observatory protocol called SAMP. For security reasons TOPCAT will require you to approve the connection, click on yes
You will then see in the web page the TOPCAT application icon (yellow cat) and in TOPCAT's table list window you will see the Exoplanet.eu catalogue data. If the connection is already opened, click on “send table” to send the data.

click on the grid icon “Display table cell data” to browse the catalogue, highlighted in red on fig 1. The result is shown on fig 2.

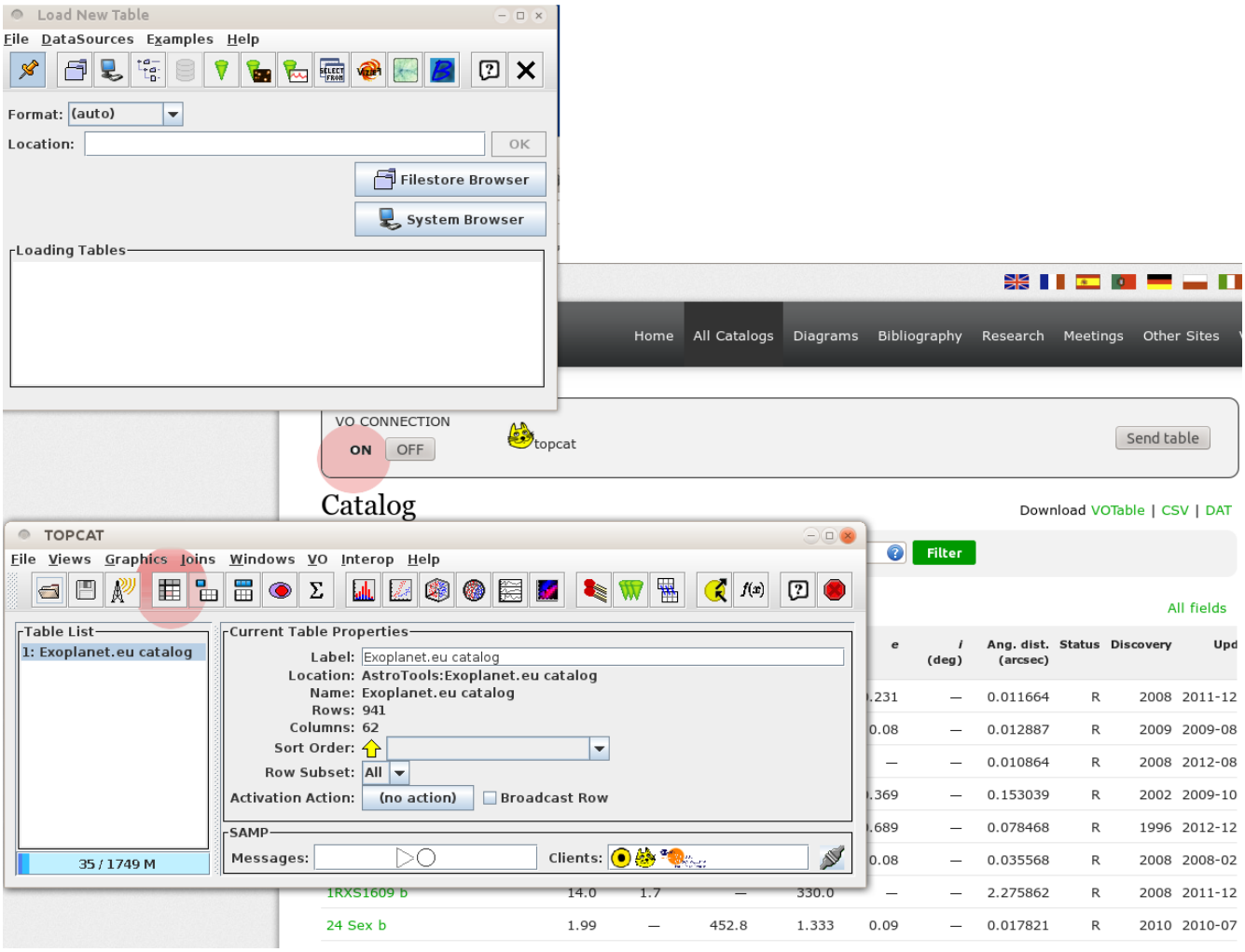
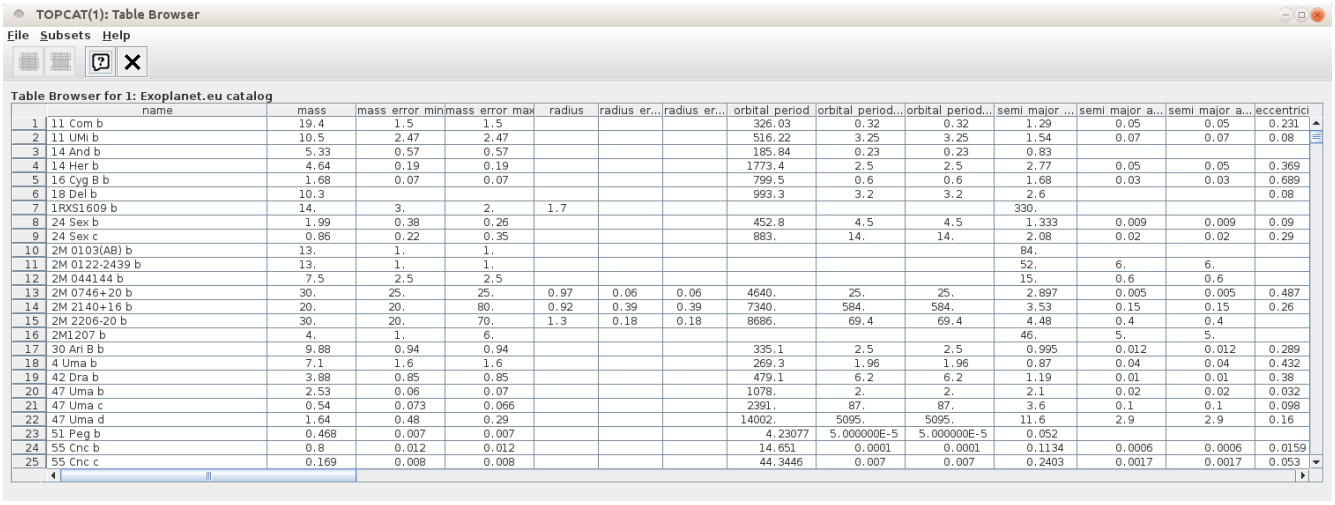


fig 1 : Catalogue with TOPCAT



	name	mass	mass error min	mass error max	radius	radius er...	radius er...	orbital period	orbital period...	orbital period...	semi major ...	semi major a...	semi major a...	eccentrici
1	11 Com b	19.4	1.5	1.5				326.03	0.32	0.32	1.29	0.05	0.05	0.231
2	11 UMi b	10.5	2.47	2.47				516.22	3.25	3.25	1.54	0.07	0.07	0.08
3	14 And b	5.33	0.57	0.57				185.84	0.23	0.23	0.83			
4	14 Her b	4.64	0.19	0.19				1773.4	2.5	2.5	2.77	0.05	0.05	0.369
5	16 Cyg B b	1.68	0.07	0.07				799.5	0.6	0.6	1.68	0.03	0.03	0.689
6	18 Del b	10.3						993.3	3.2	3.2	2.6			0.08
7	1RXS1609 b	14.	3.	2.	1.7						330.			
8	24 Sex b	1.99	0.38	0.26				452.8	4.5	4.5	1.333	0.009	0.009	0.09
9	24 Sex c	0.86	0.22	0.35				883.	14.	14.	2.08	0.02	0.02	0.29
10	2M 0103(AB) b	13.	1.	1.							84.			
11	2M 0122-2439 b	13.	1.	1.							52.	6.	6.	
12	2M 044144 b	7.5	2.5	2.5							15.	0.6	0.6	
13	2M 0746+20 b	30.	25.	25.	0.97	0.06	0.06	4640.	25.	25.	2.897	0.005	0.005	0.487
14	2M 2140+16 b	20.	20.	80.	0.92	0.39	0.39	7340.	584.	584.	3.53	0.15	0.15	0.26
15	2M 2206-20 b	30.	20.	70.	1.3	0.18	0.18	8686.	69.4	69.4	4.48	0.4	0.4	
16	2M1207 b	4.	1.	6.							46.	5.	5.	
17	30 Ari B b	9.88	0.94	0.94				335.1	2.5	2.5	0.995	0.012	0.012	0.289
18	4 Uma b	7.1	1.6	1.6				269.3	1.96	1.96	0.87	0.04	0.04	0.432
19	42 Dra b	3.88	0.85	0.85				479.1	6.2	6.2	1.19	0.01	0.01	0.38
20	47 Uma b	2.53	0.06	0.07				1078.	2.	2.	2.1	0.02	0.02	0.032
21	47 Uma c	0.54	0.073	0.066				2391.	87.	87.	3.6	0.1	0.1	0.098
22	47 Uma d	1.64	0.48	0.29				14002.	5095.	5095.	11.6	2.9	2.9	0.16
23	51 Peg b	0.468	0.007	0.007				4.23077	5.000000E-5	5.000000E-5	0.052			
24	55 Cnc b	0.8	0.012	0.012				14.651	0.0001	0.0001	0.1134	0.0006	0.0006	0.0159
25	55 Cnc c	0.169	0.008	0.008				44.3446	0.007	0.007	0.2403	0.0017	0.0017	0.053

fig 2 : All the data have been transferred to TOPCAT you can visualize values using the grid view

Different plotting tools such as Histogram, graphical plot, or plot on celestial sphere are available see

fig 3

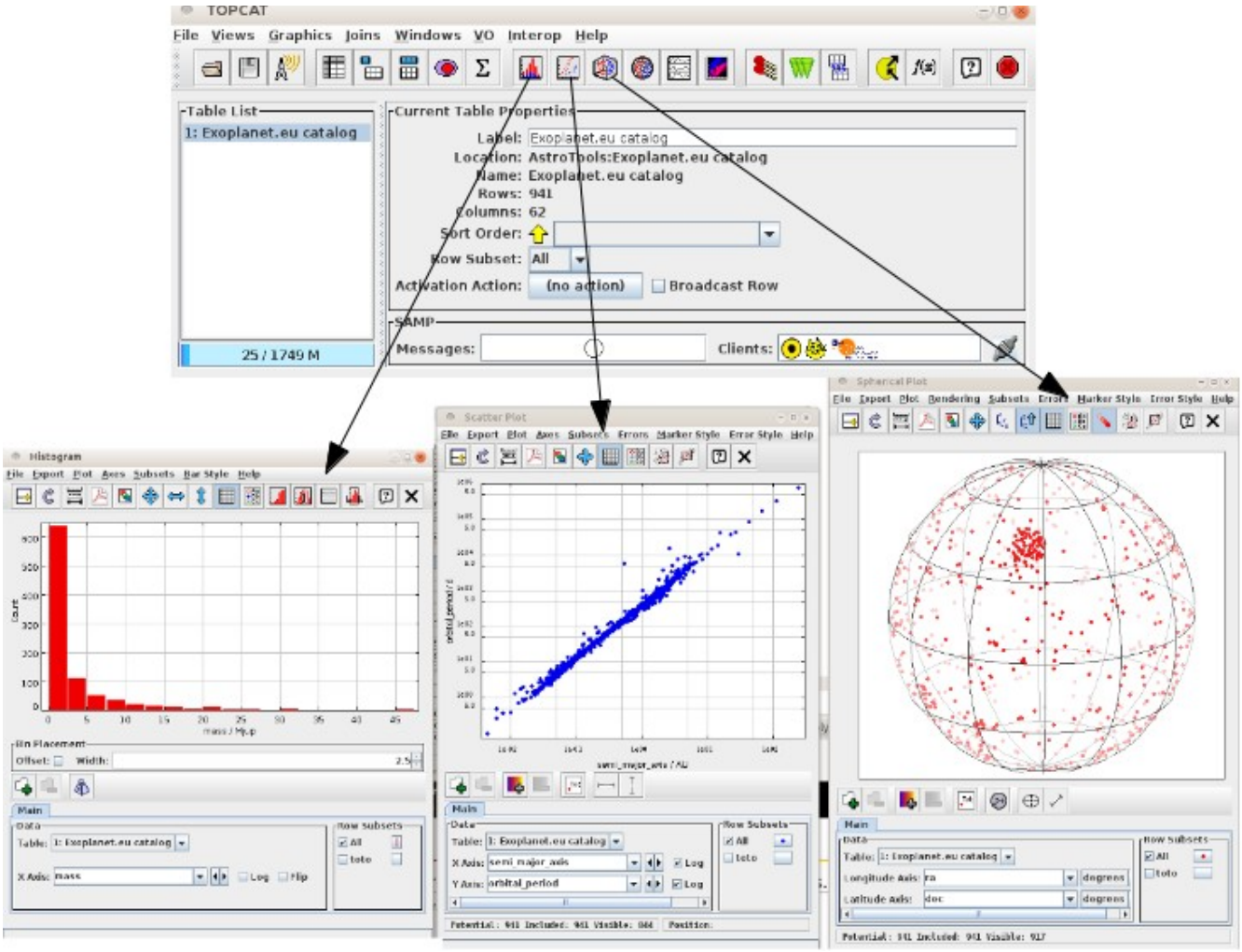


fig 3 : some of the visualisation capabilities of TOPCAT