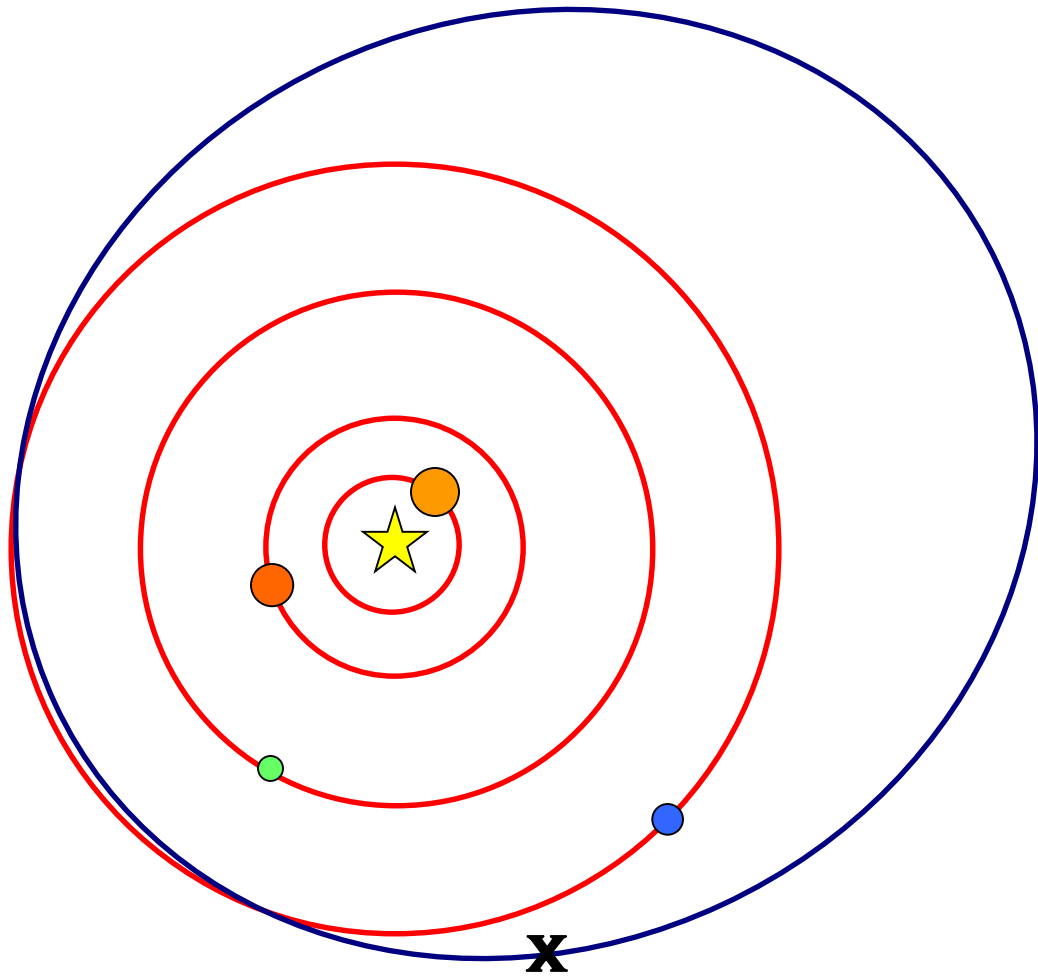
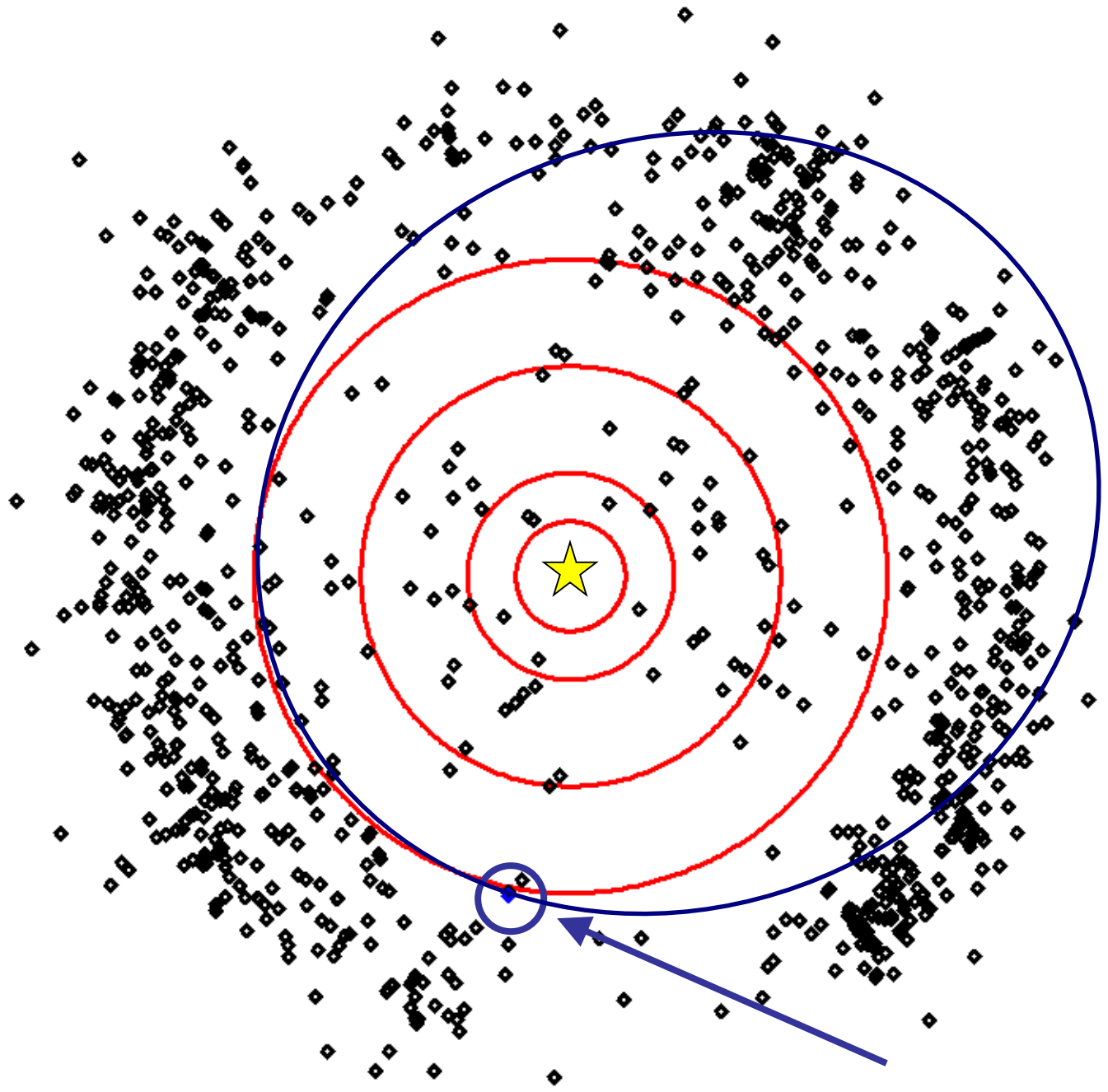


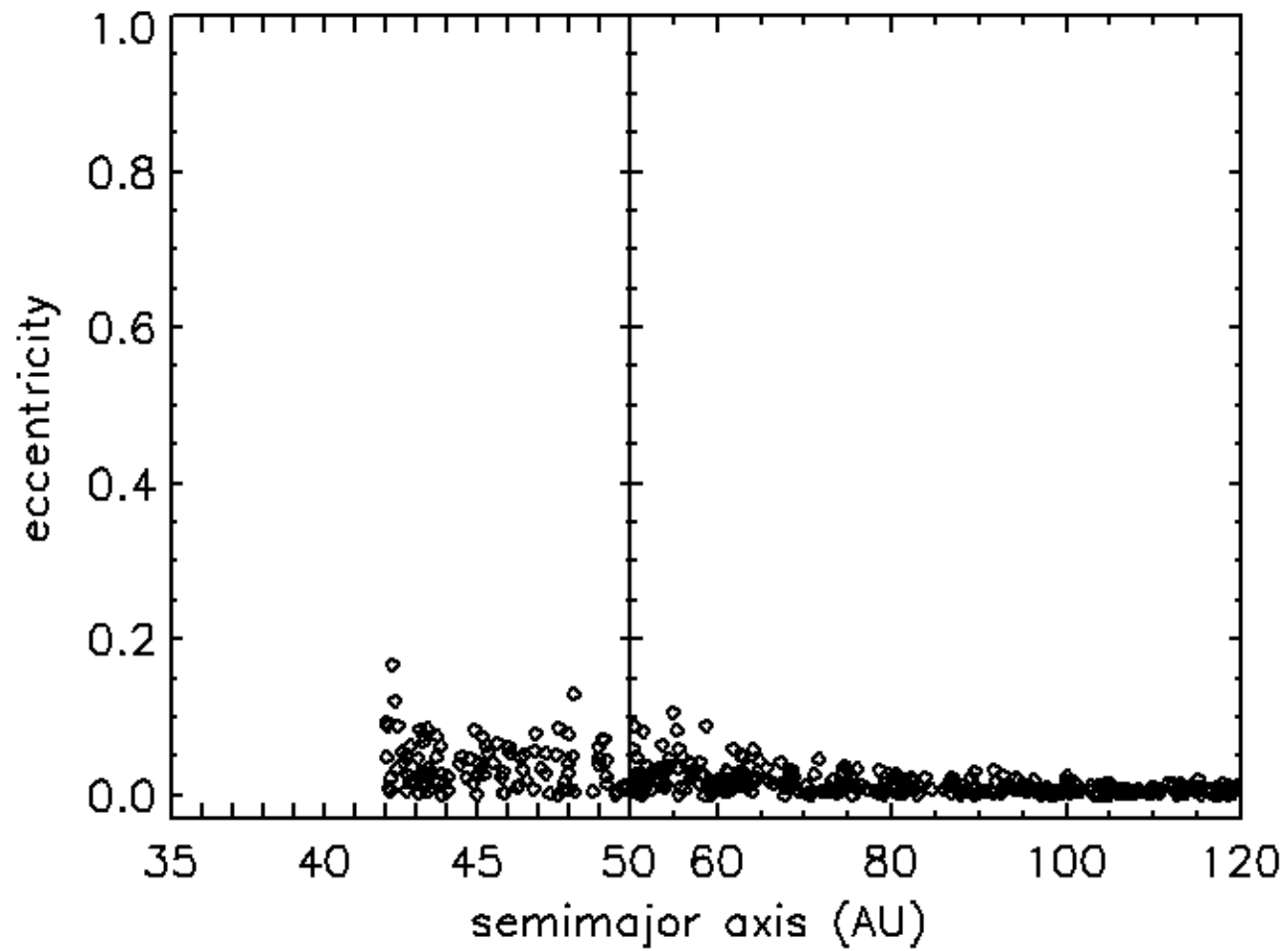


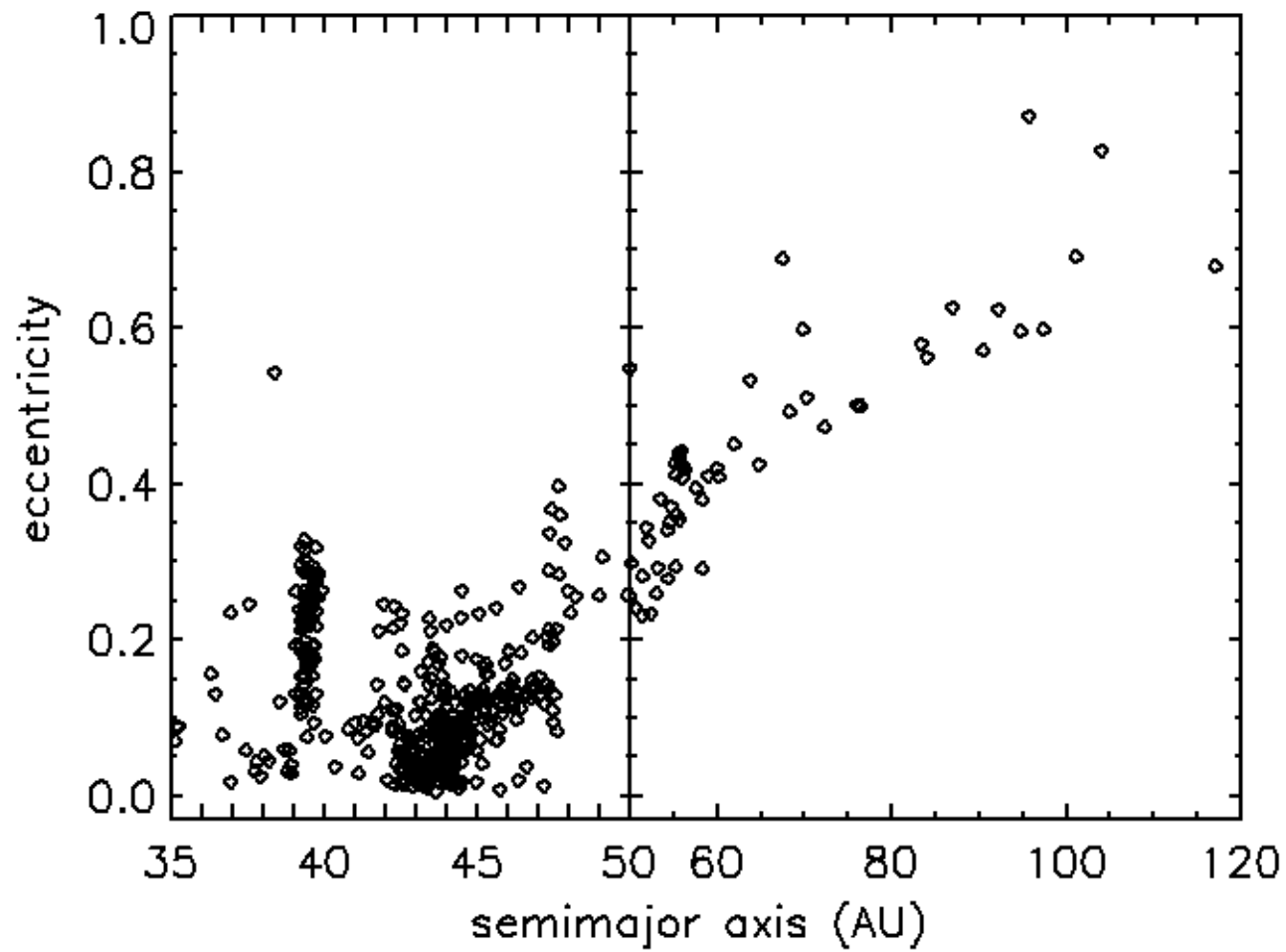
The Kuiper Belt and the Oort cloud

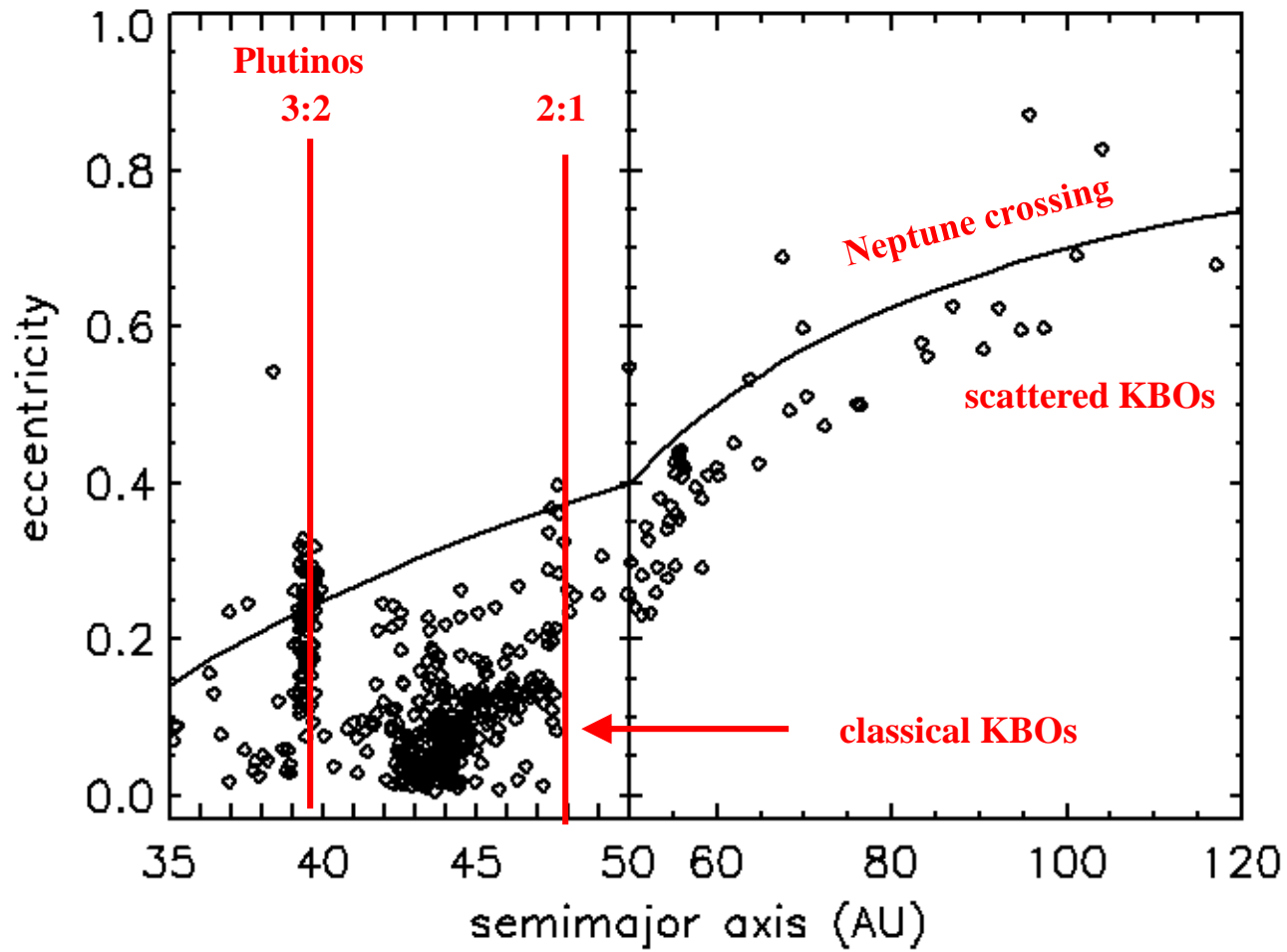
Mike Brown
Caltech











J **3:2** **2:1** **S** **5:2**

5.2 AU	6.8 AU	8.2 AU	9.2 AU	9.6AU
11.6 yrs	17.8 yr	23.7 yr	29.5 yr	29.6 yr

J

3:2

2:1

S

5:2

5.2 AU
11.6 yrs

6.8 AU
17.8 yr

8.2 AU
23.7 yr

9.2 AU
29.5 yr

9.6AU
29.6 yr

J

3:2

S

2:1

5:2

5.6 AU
13.2 yrs

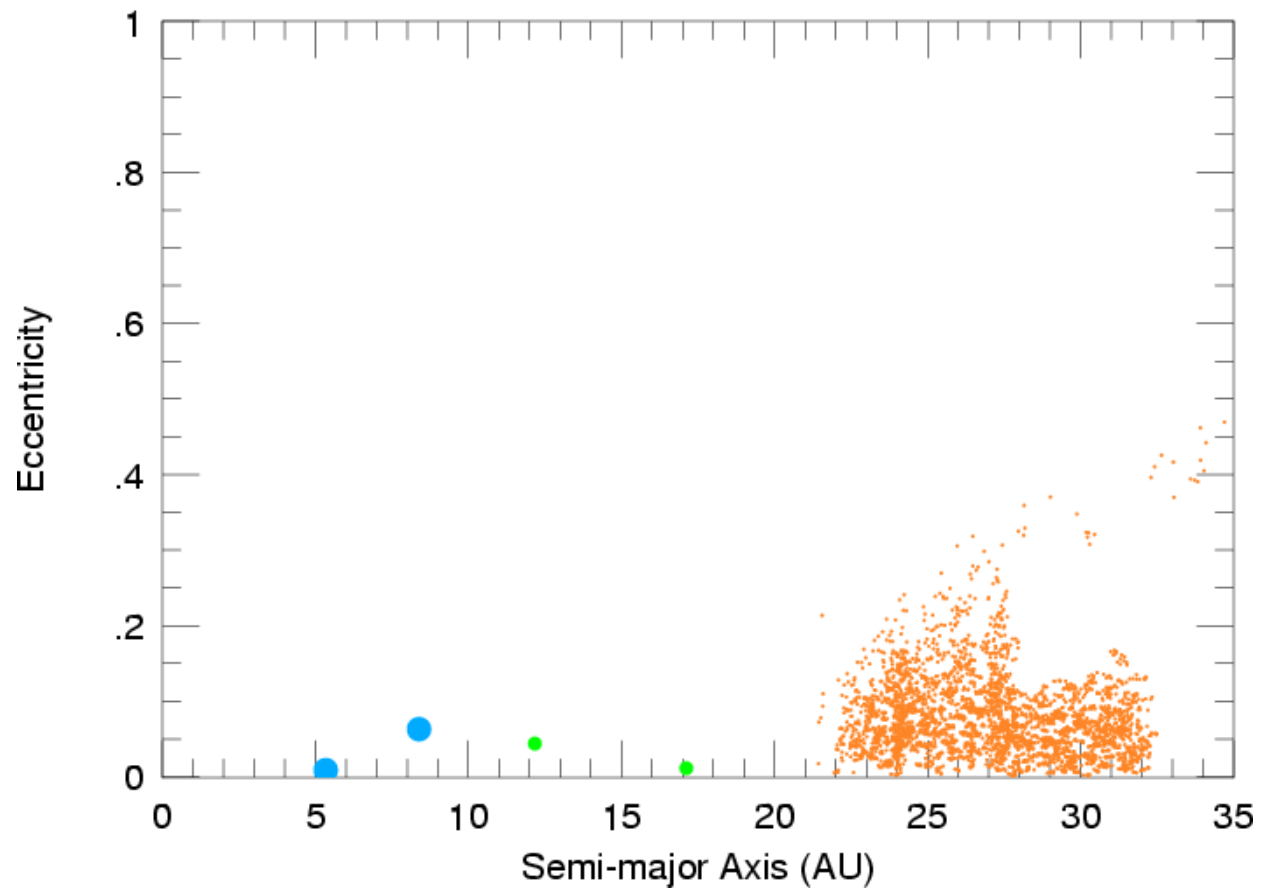
7.3 AU
19.9 yr

8.6 AU
25.2 yr

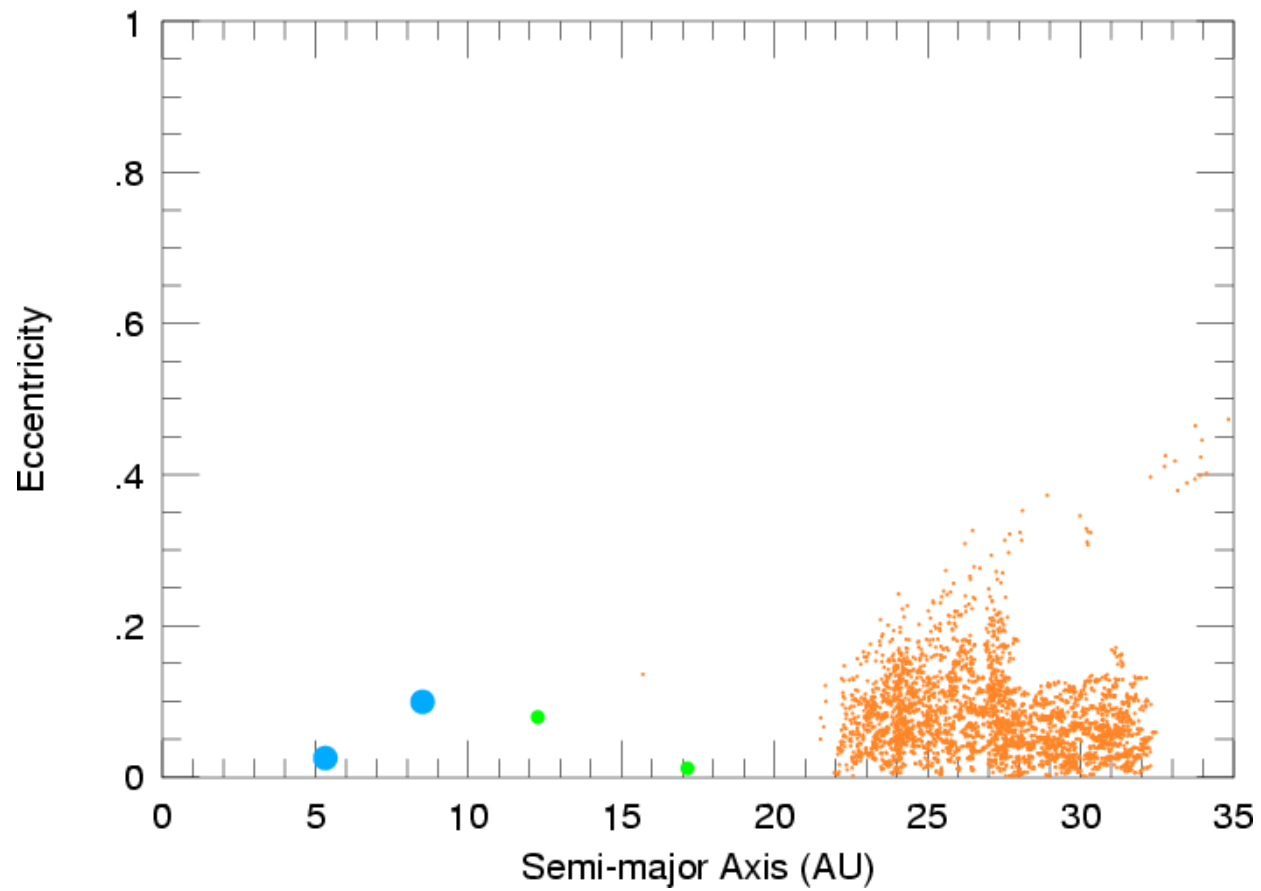
8.8 AU
26.5 yr

10.3AU
33.1 yr

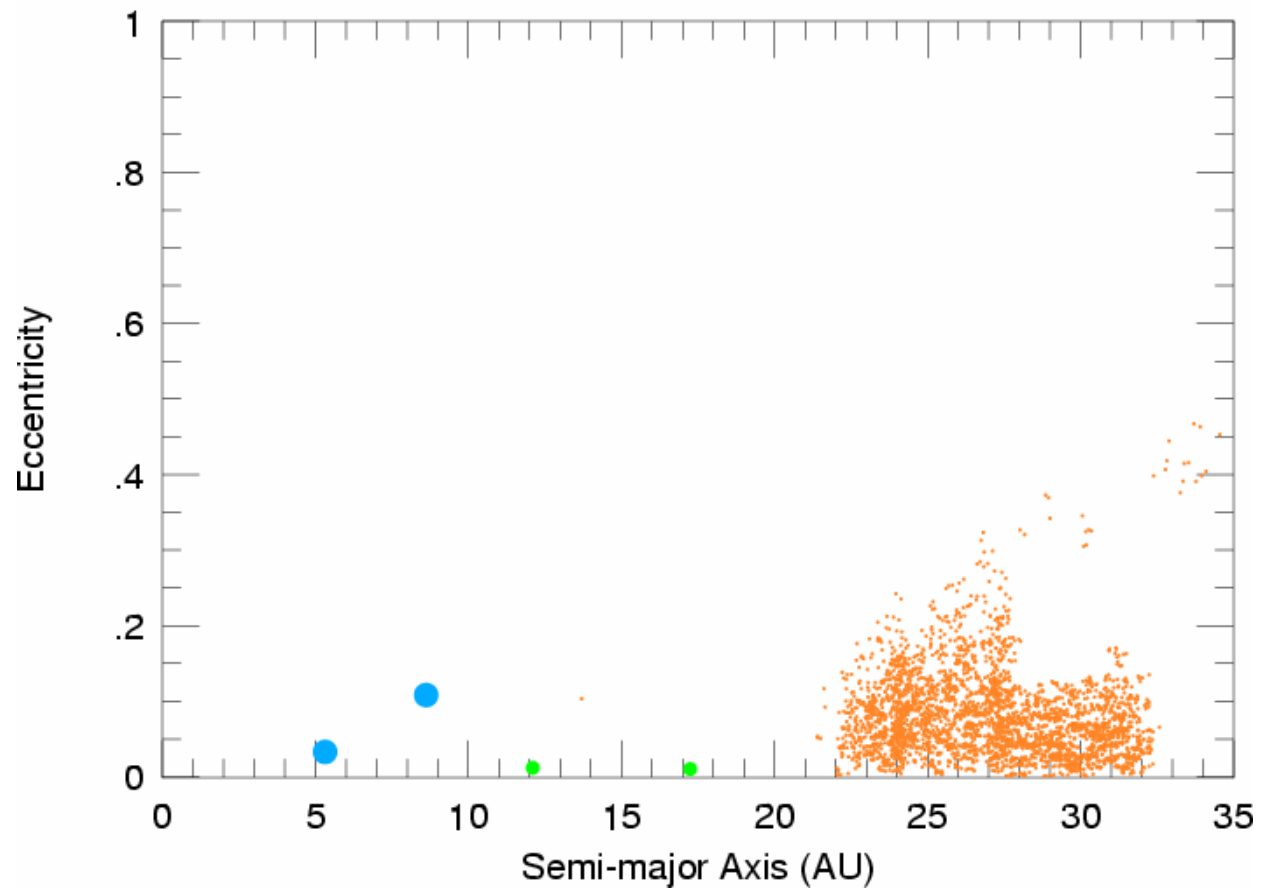
$t=3.20 \times 10^7$



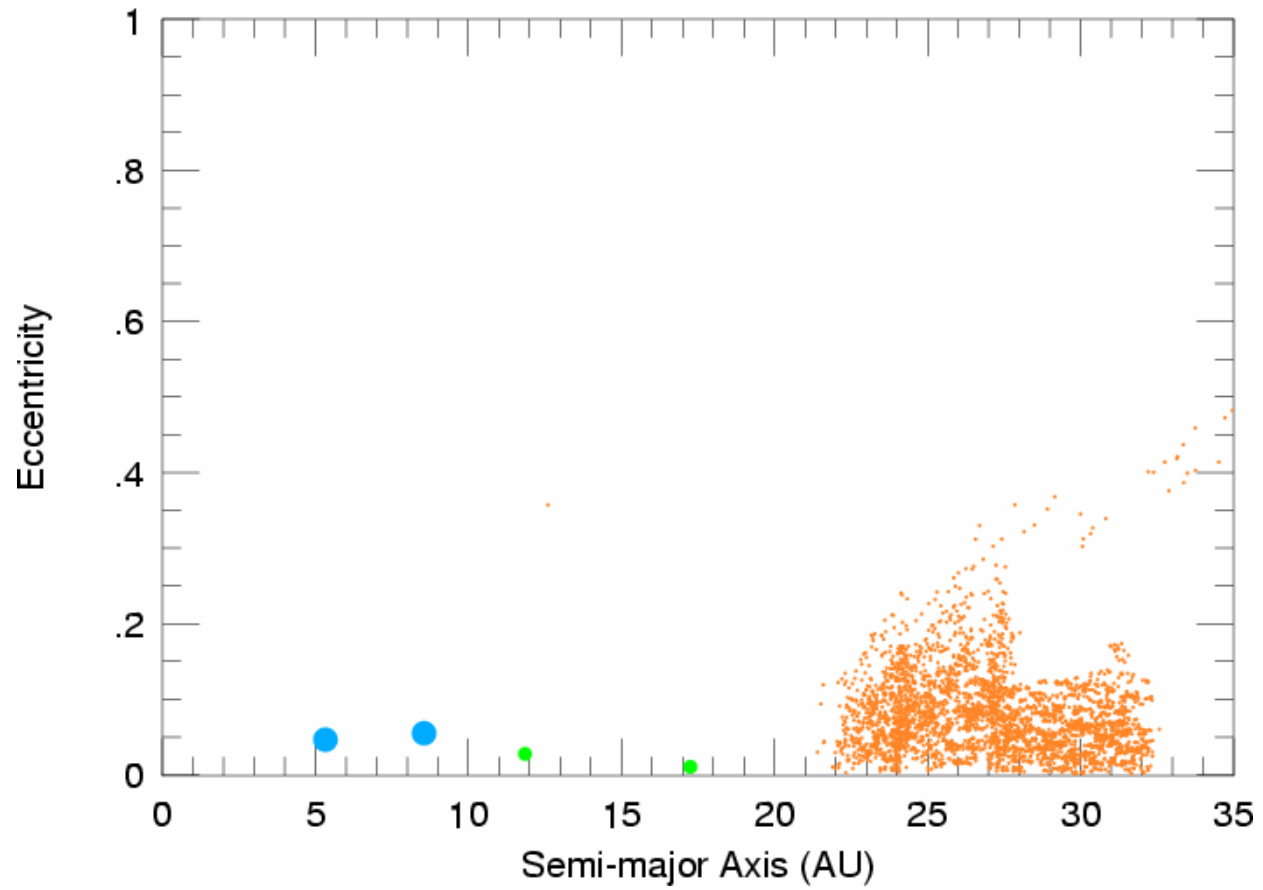
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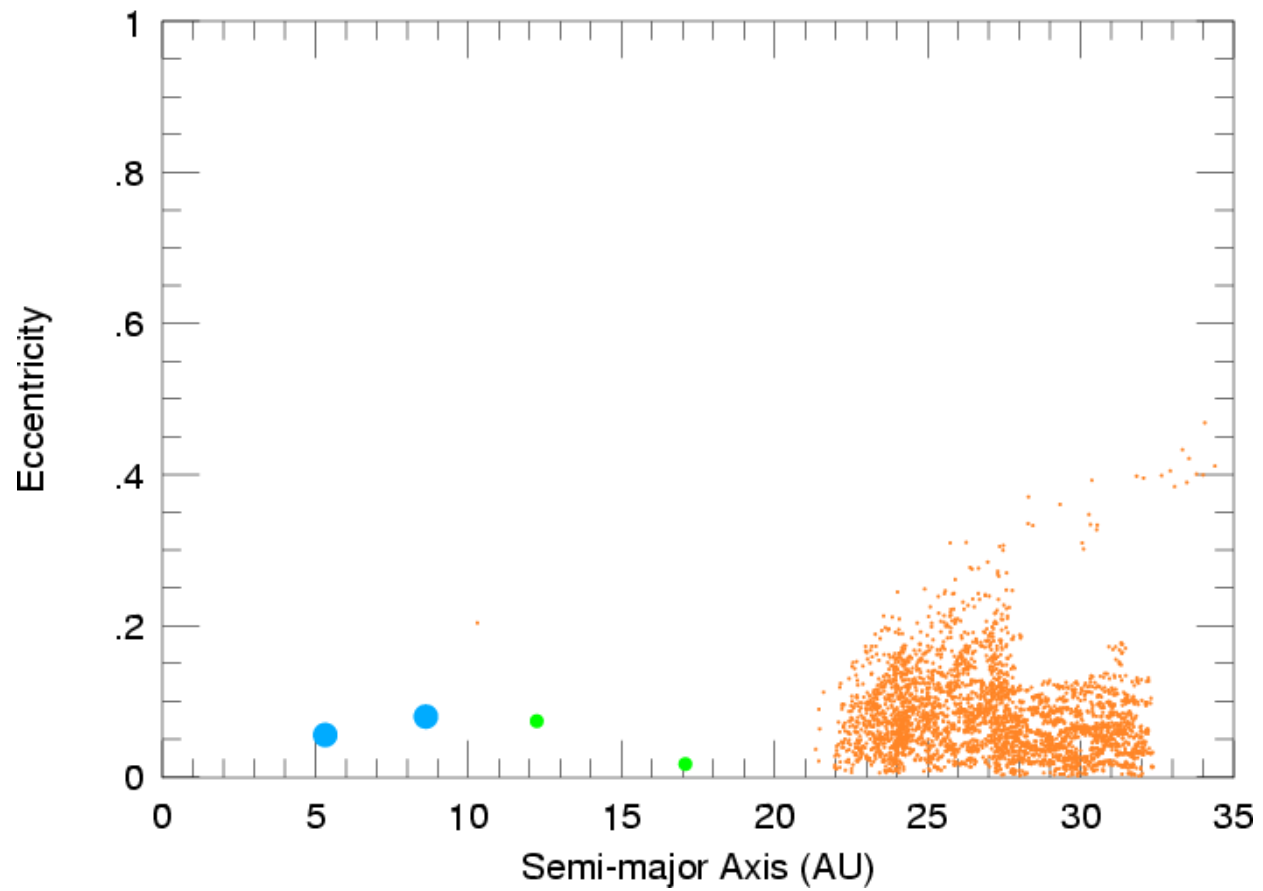
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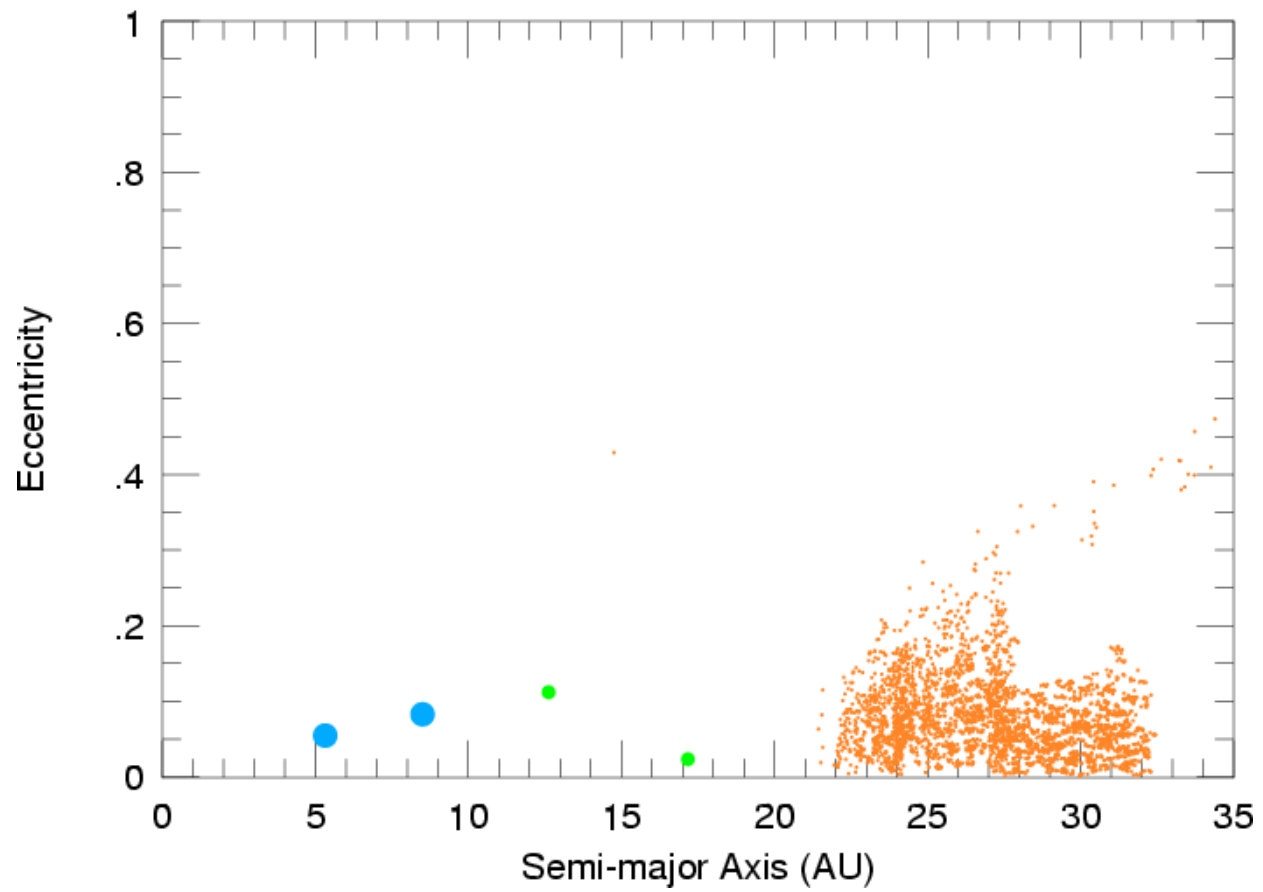
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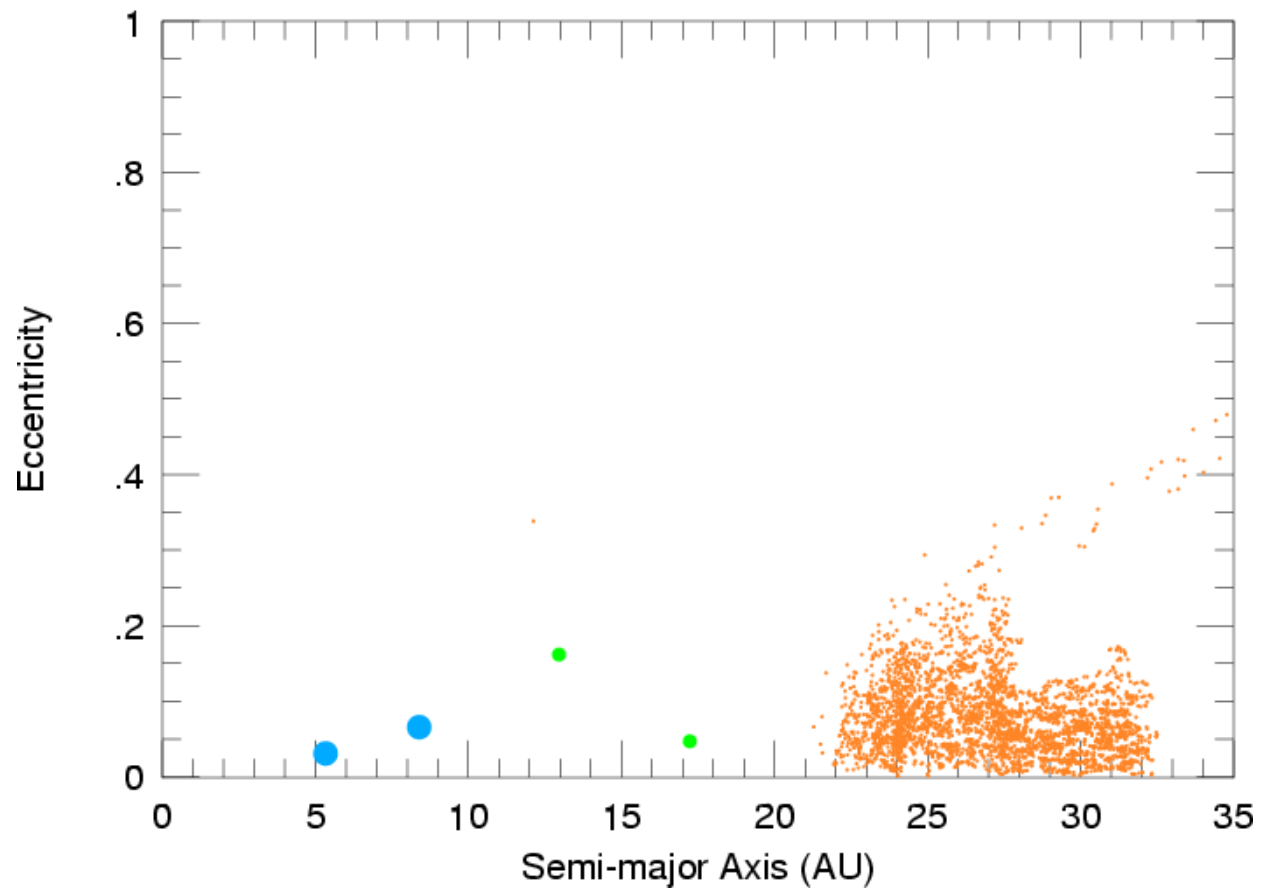
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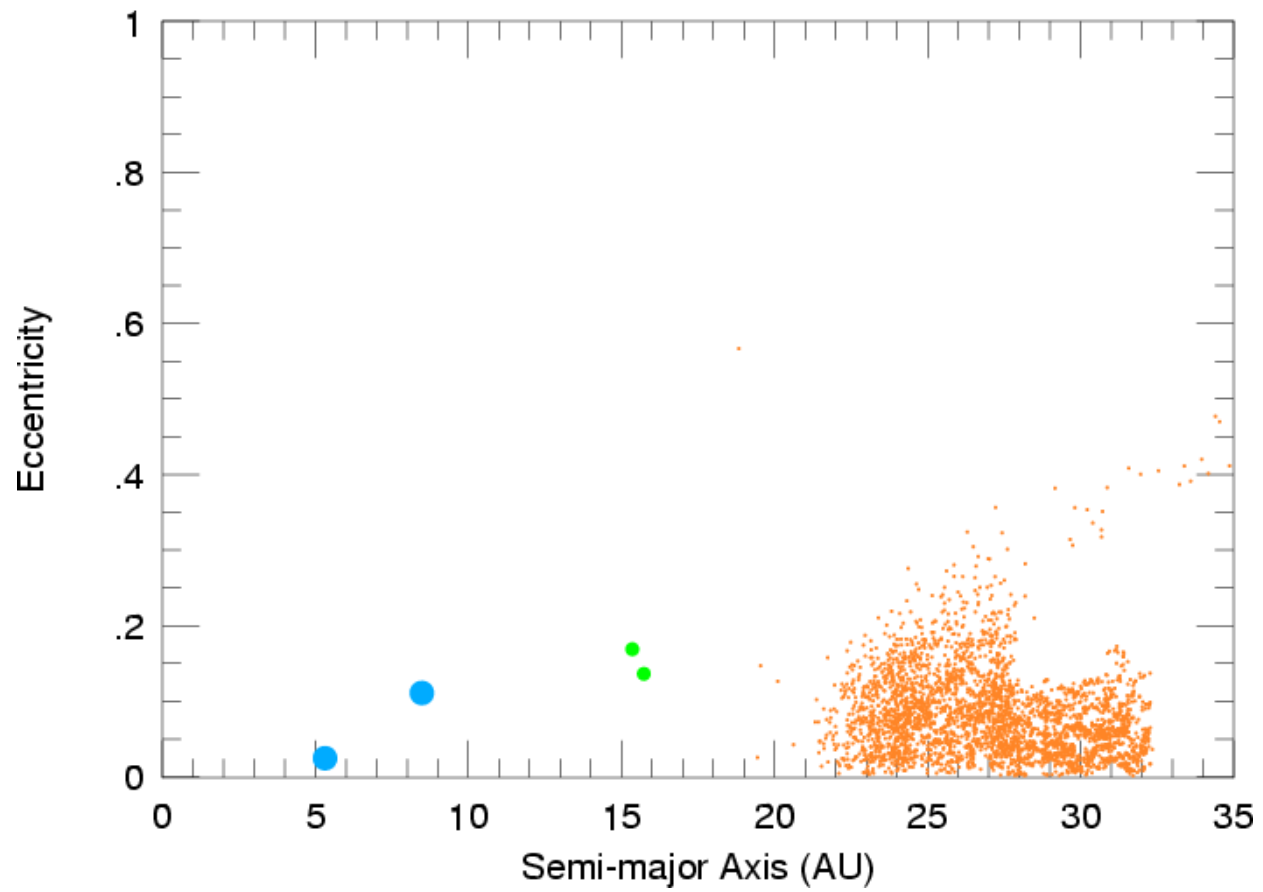
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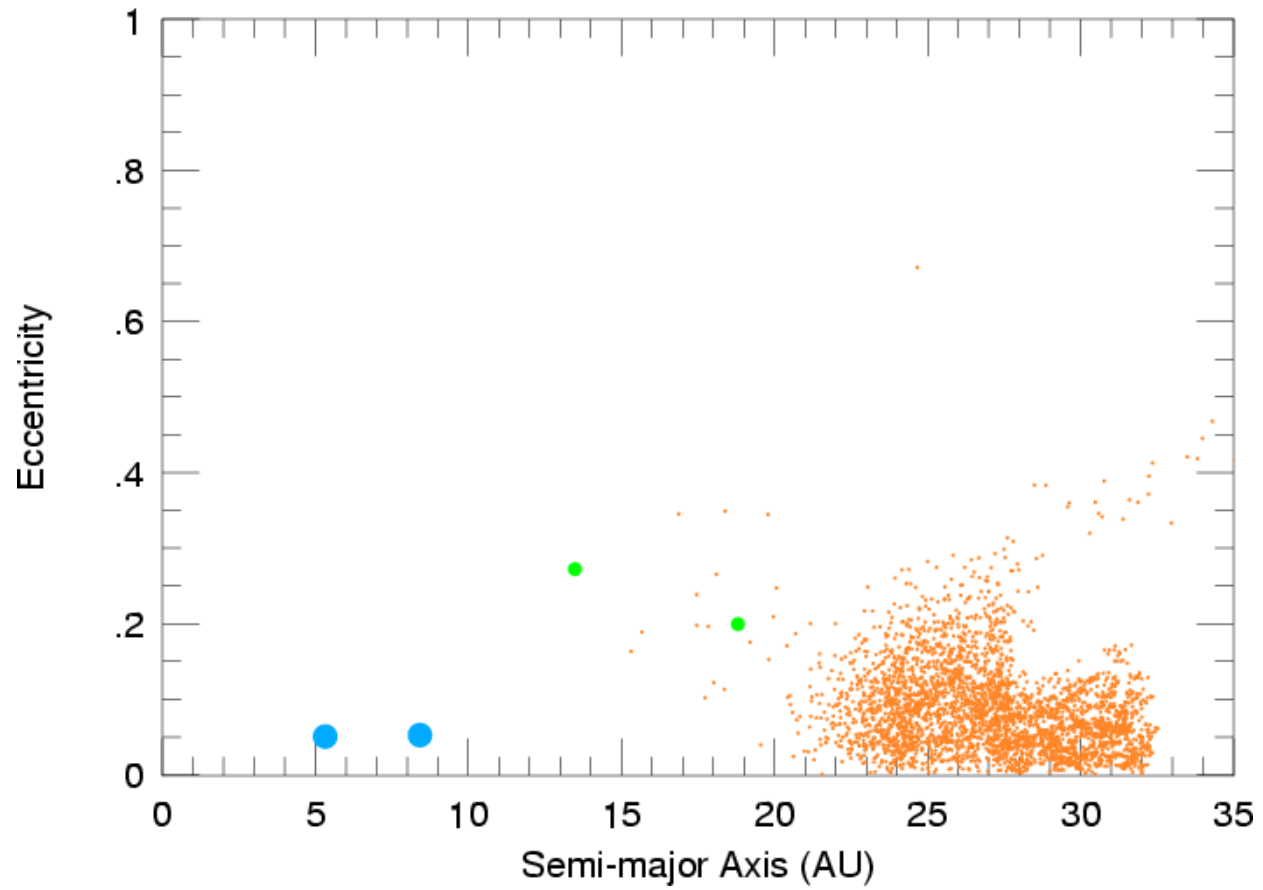
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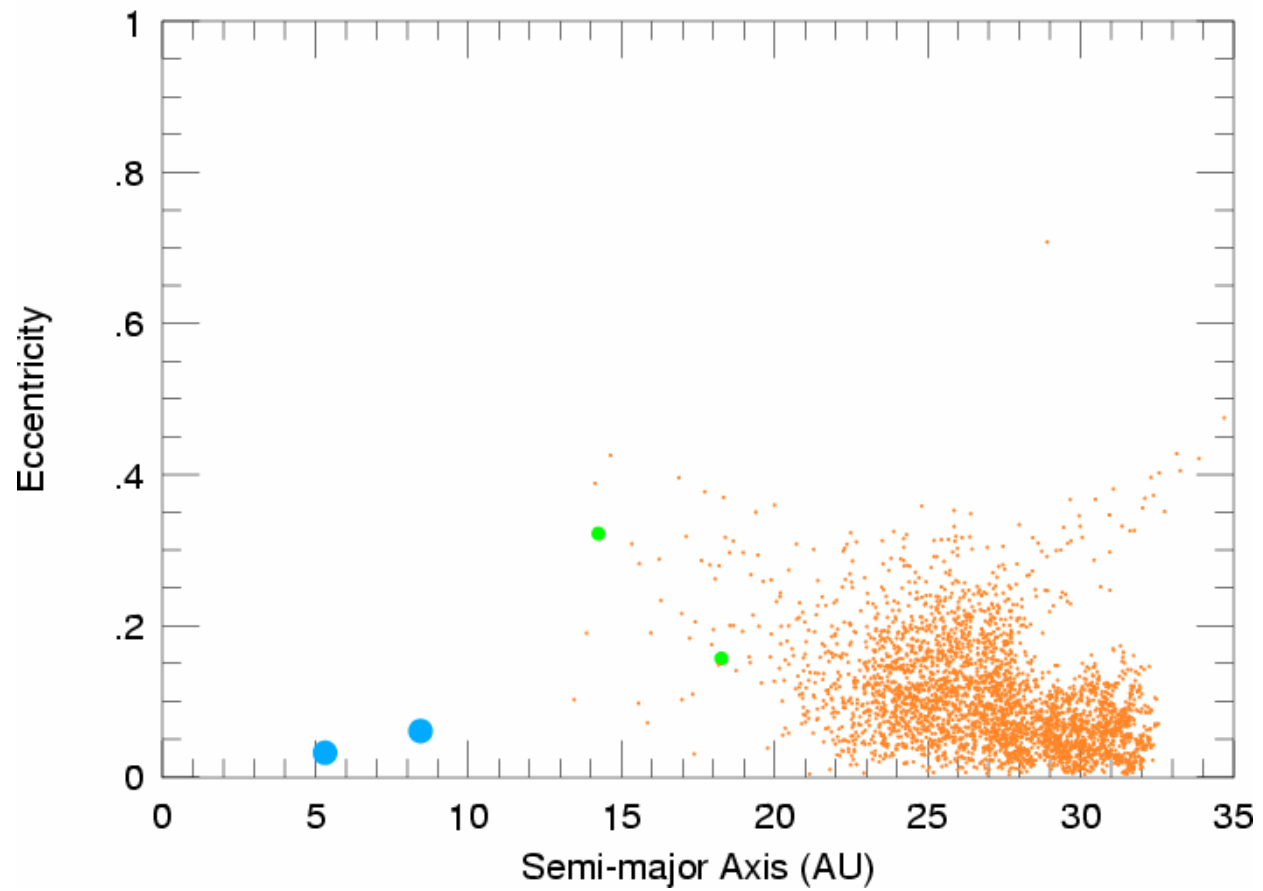
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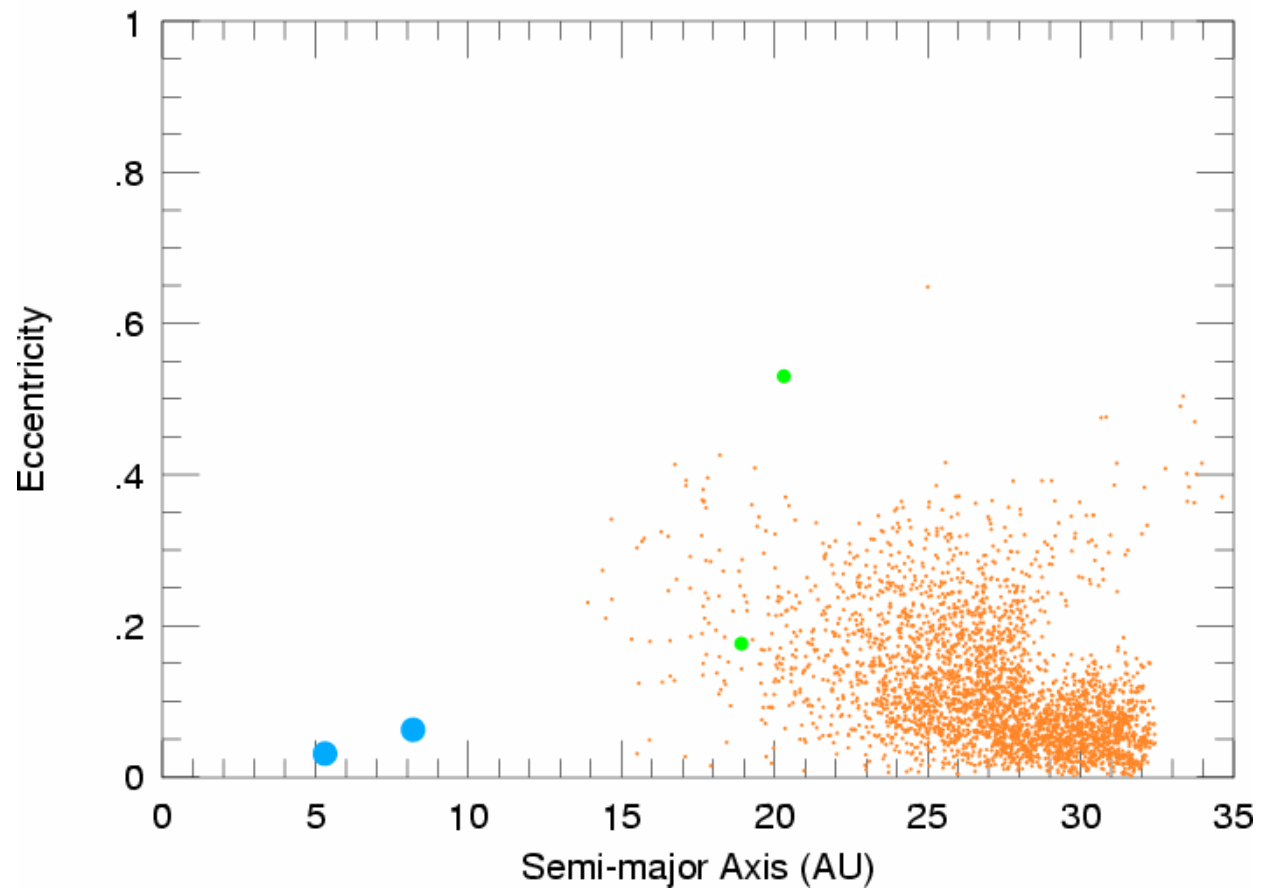
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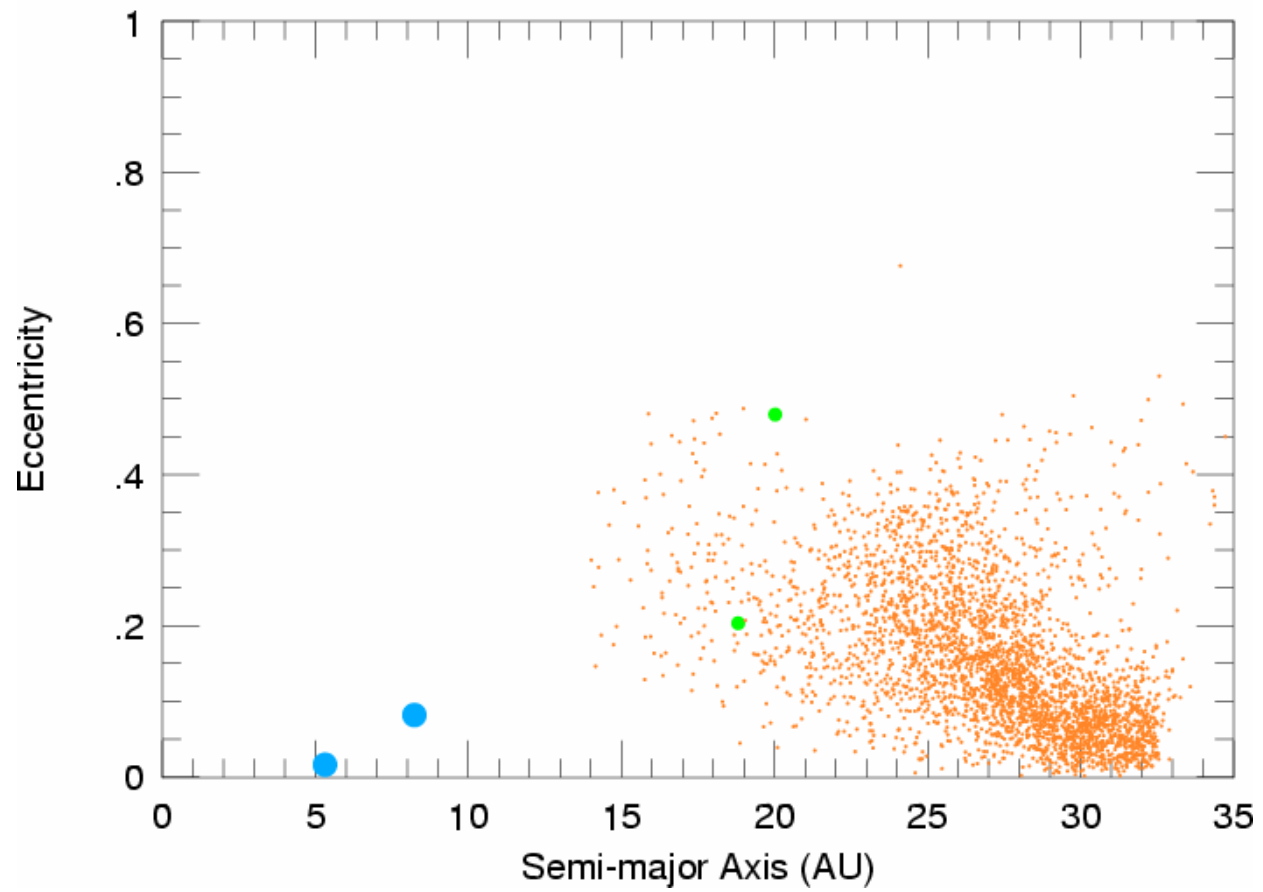
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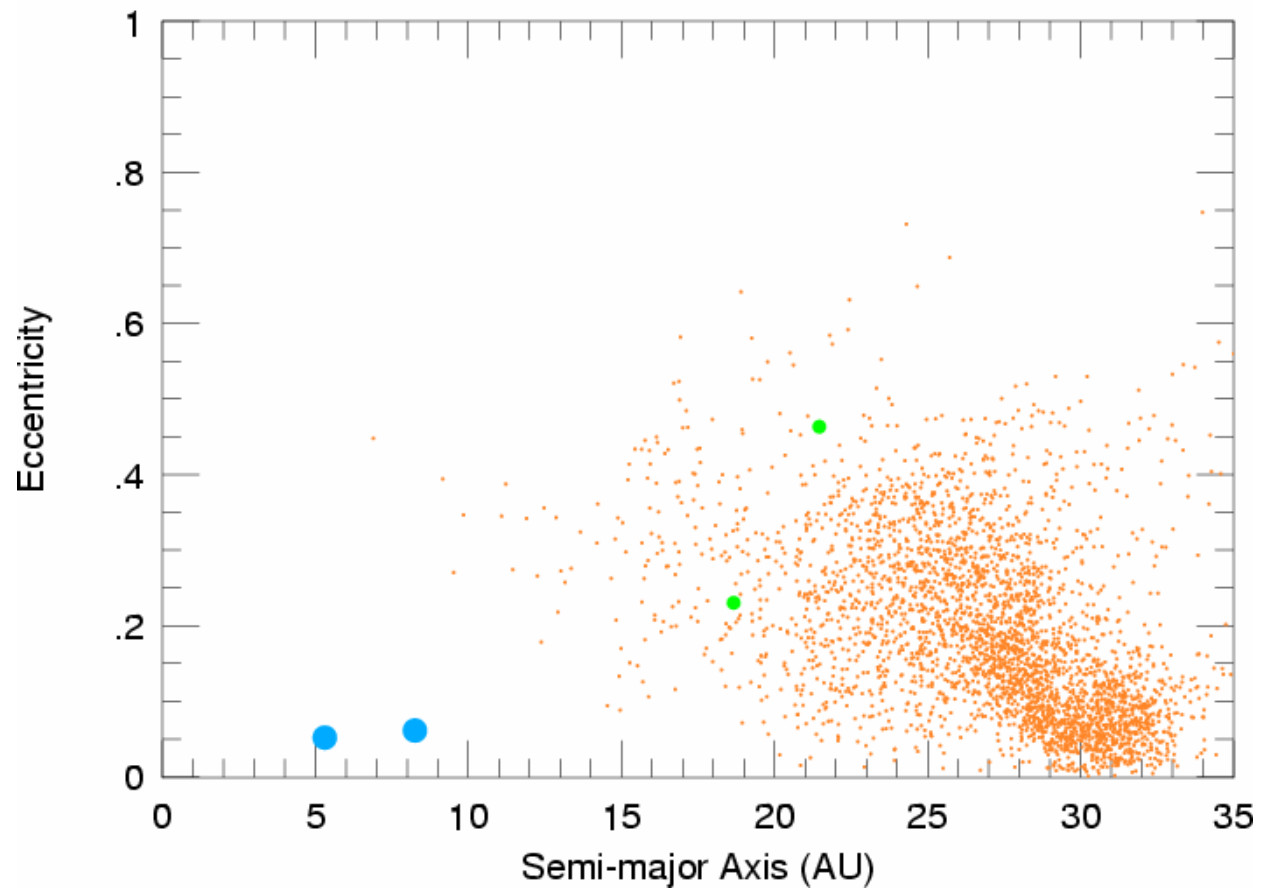
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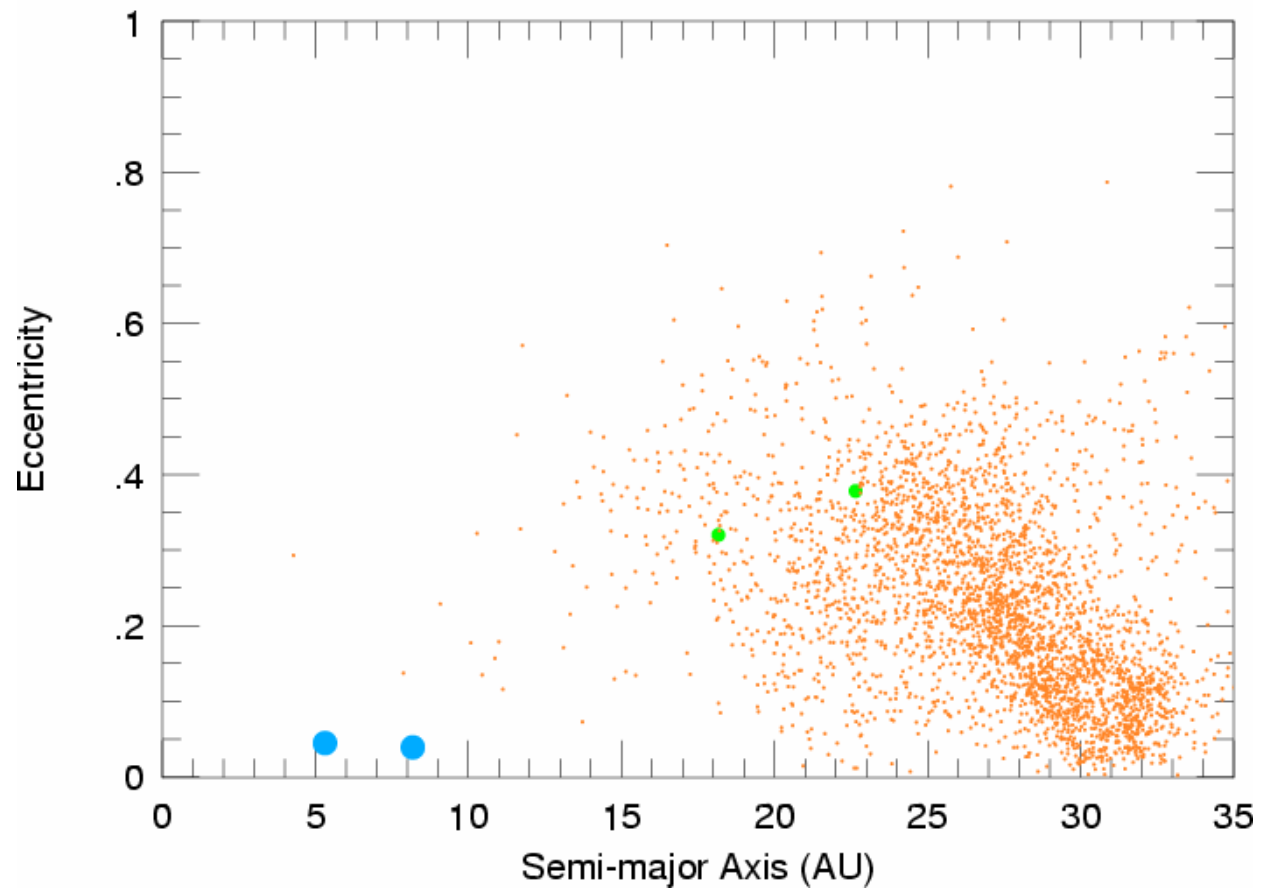
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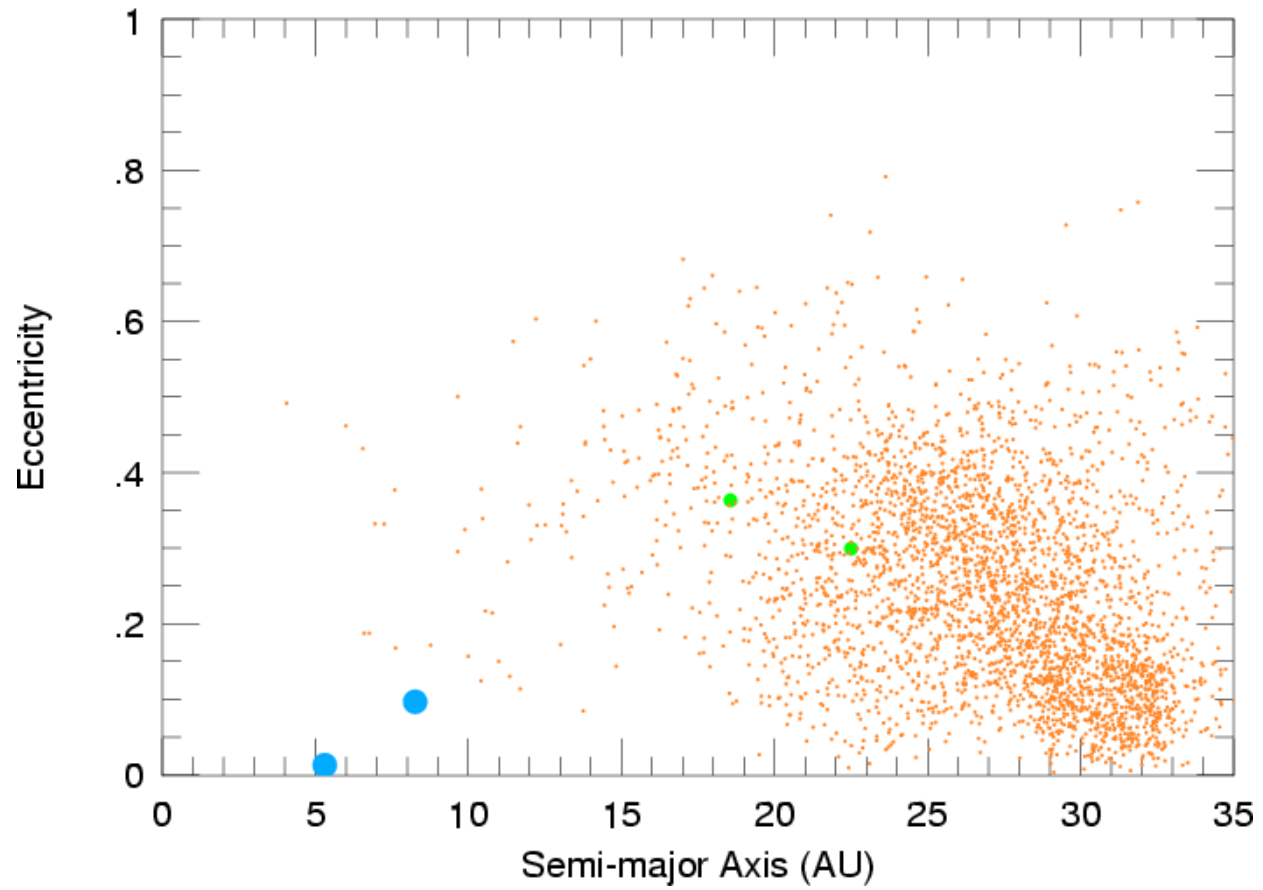
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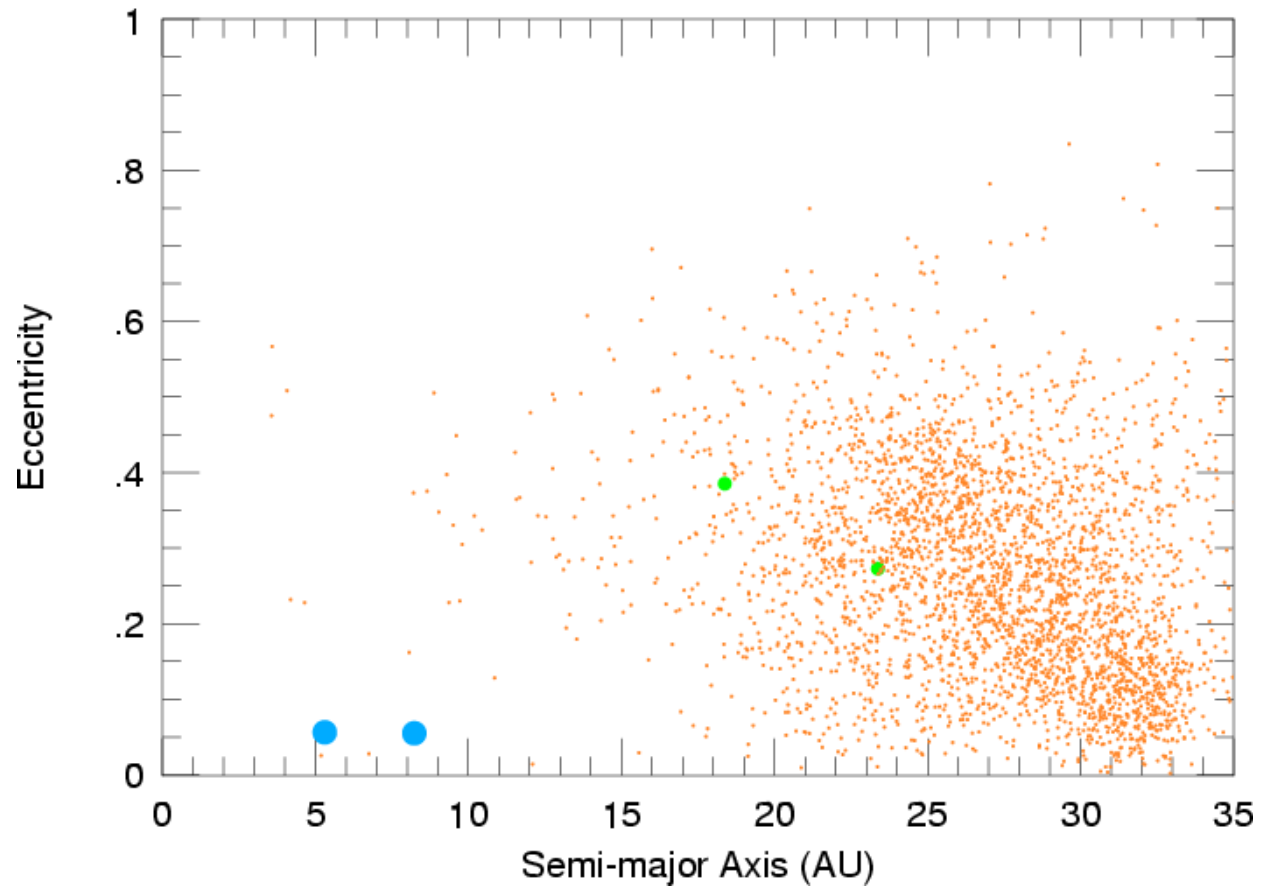
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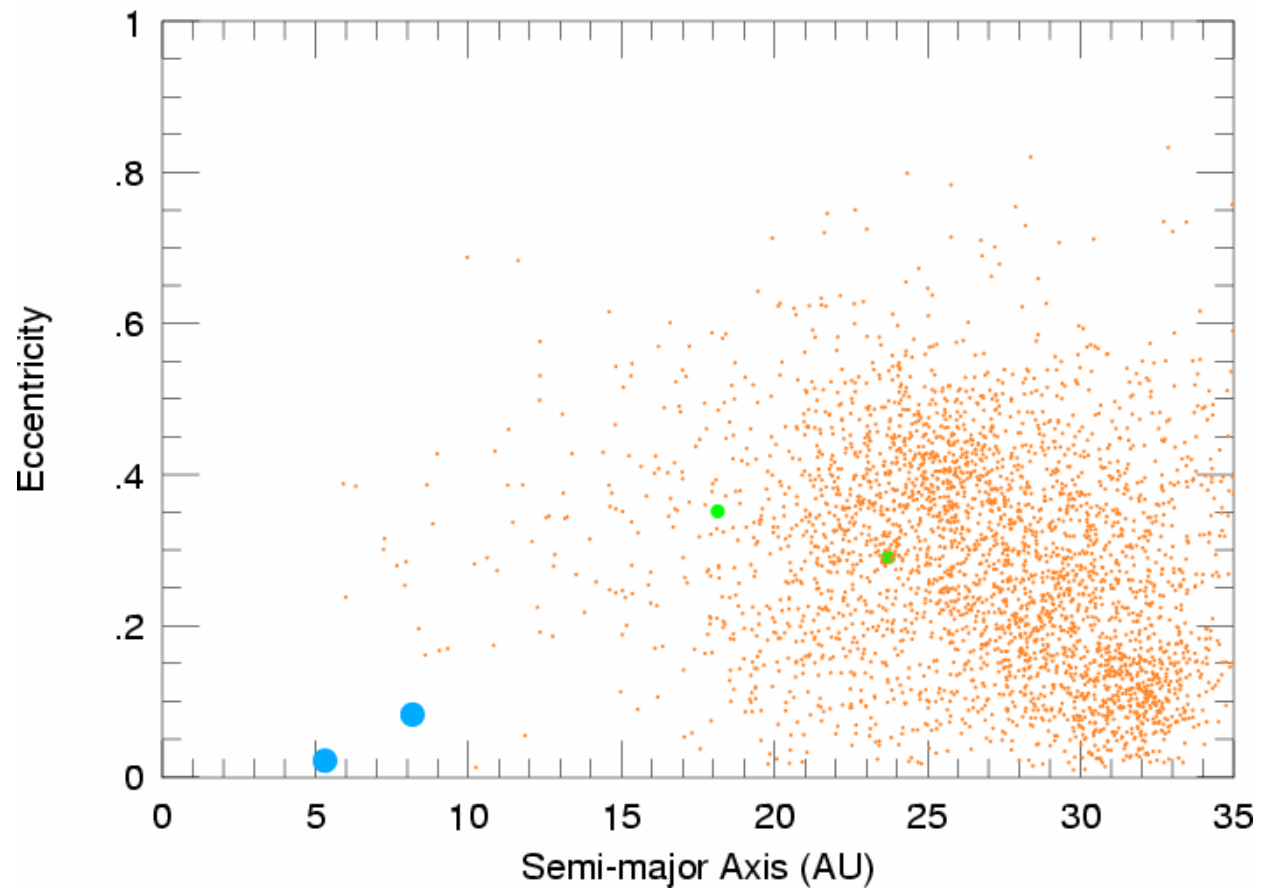
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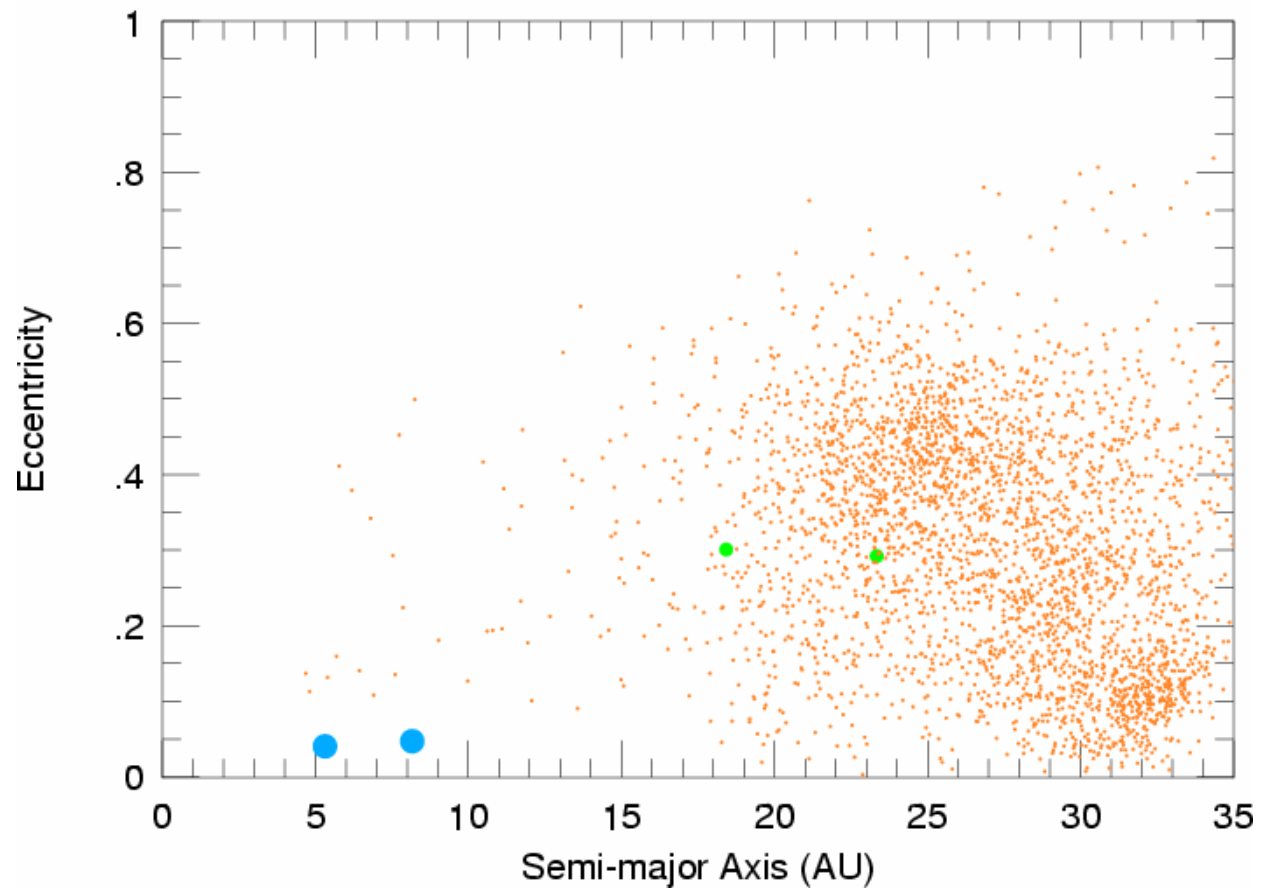
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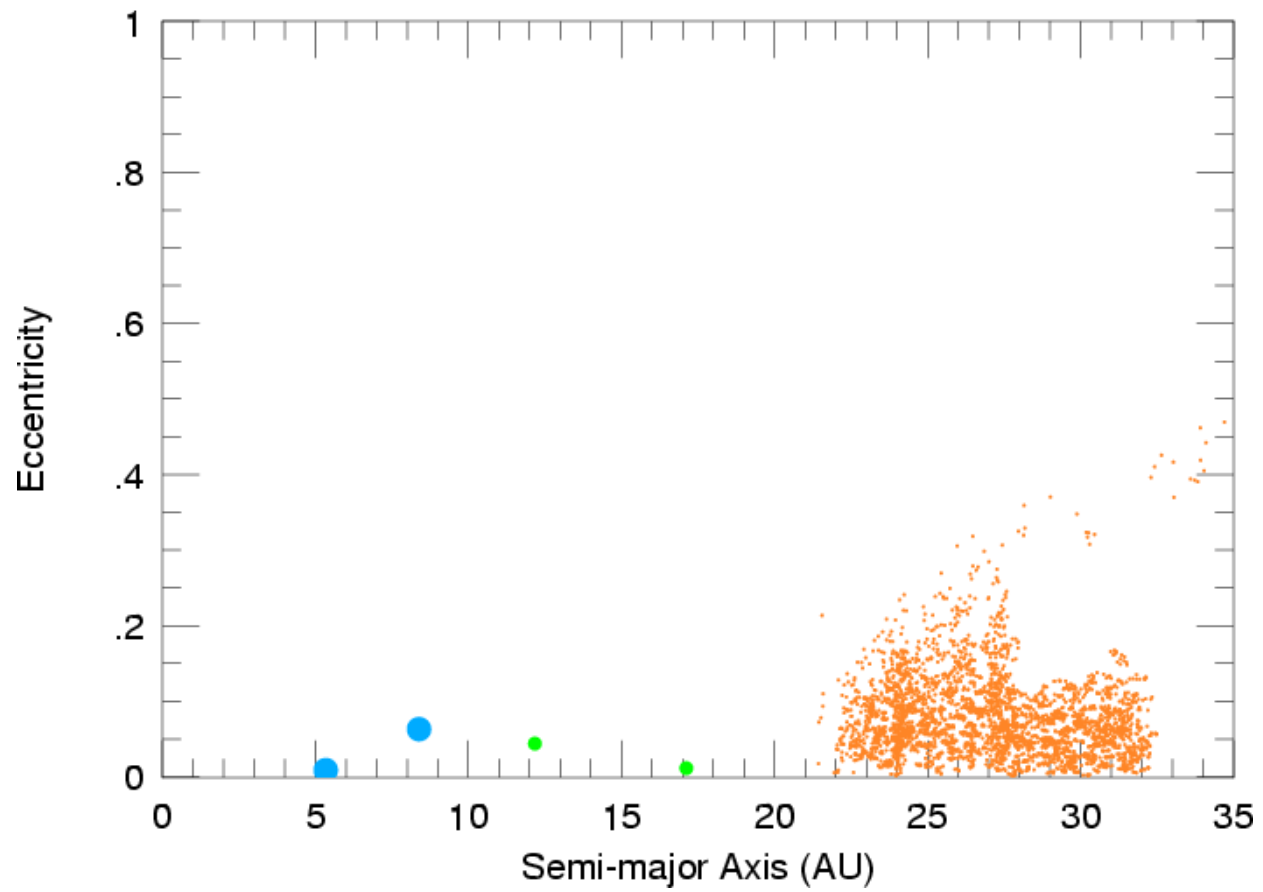
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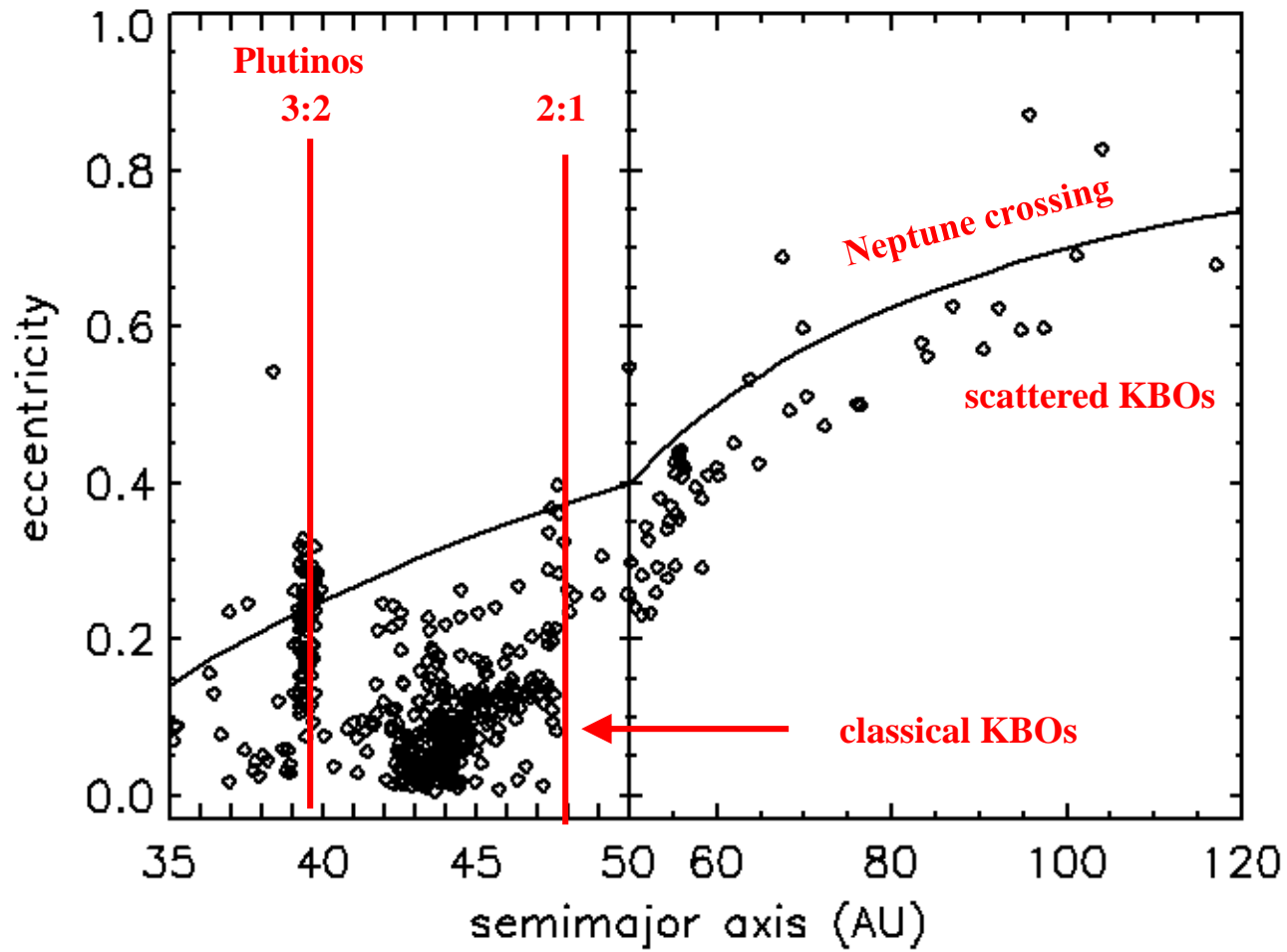


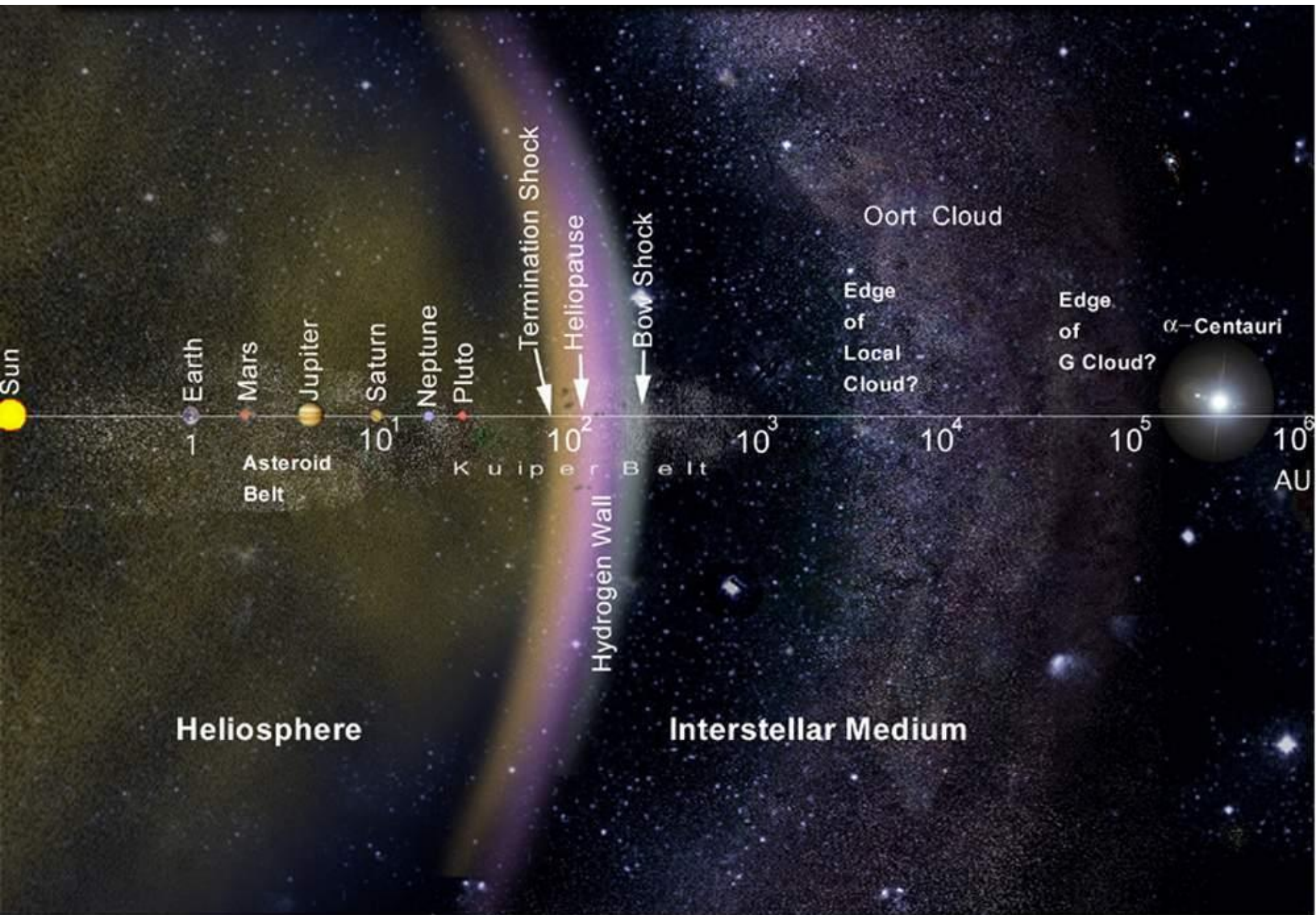
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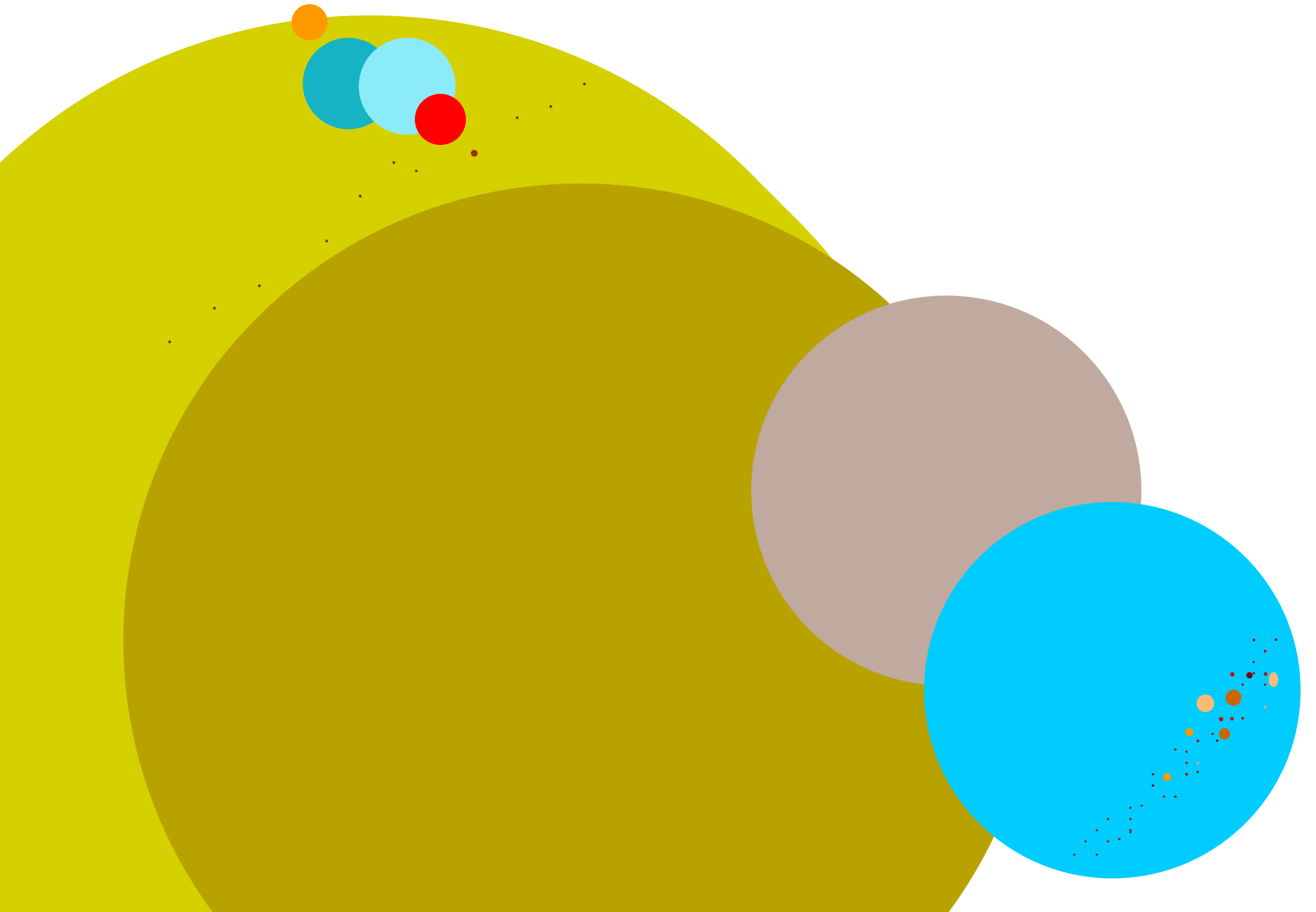


$t=3.20 \times 10^7$



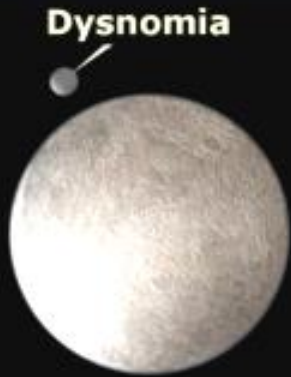






Largest known trans-Neptunian objects (TNOs)

(2012)



Eris



Pluto



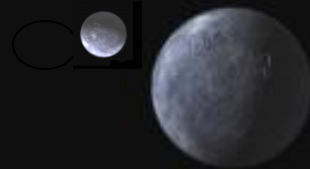
Makemake



Haumea



Sedna



Orcus



Quaoar



Snow White



