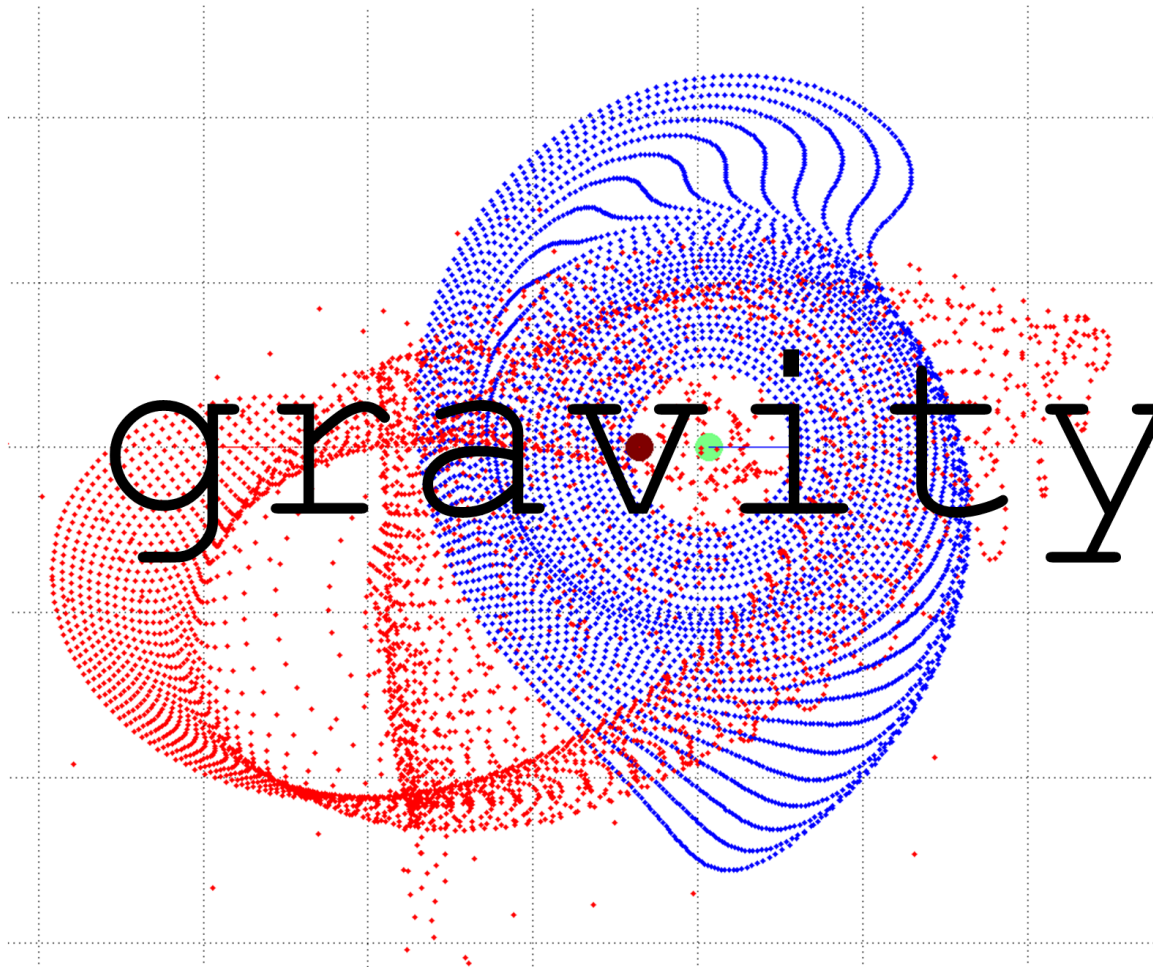
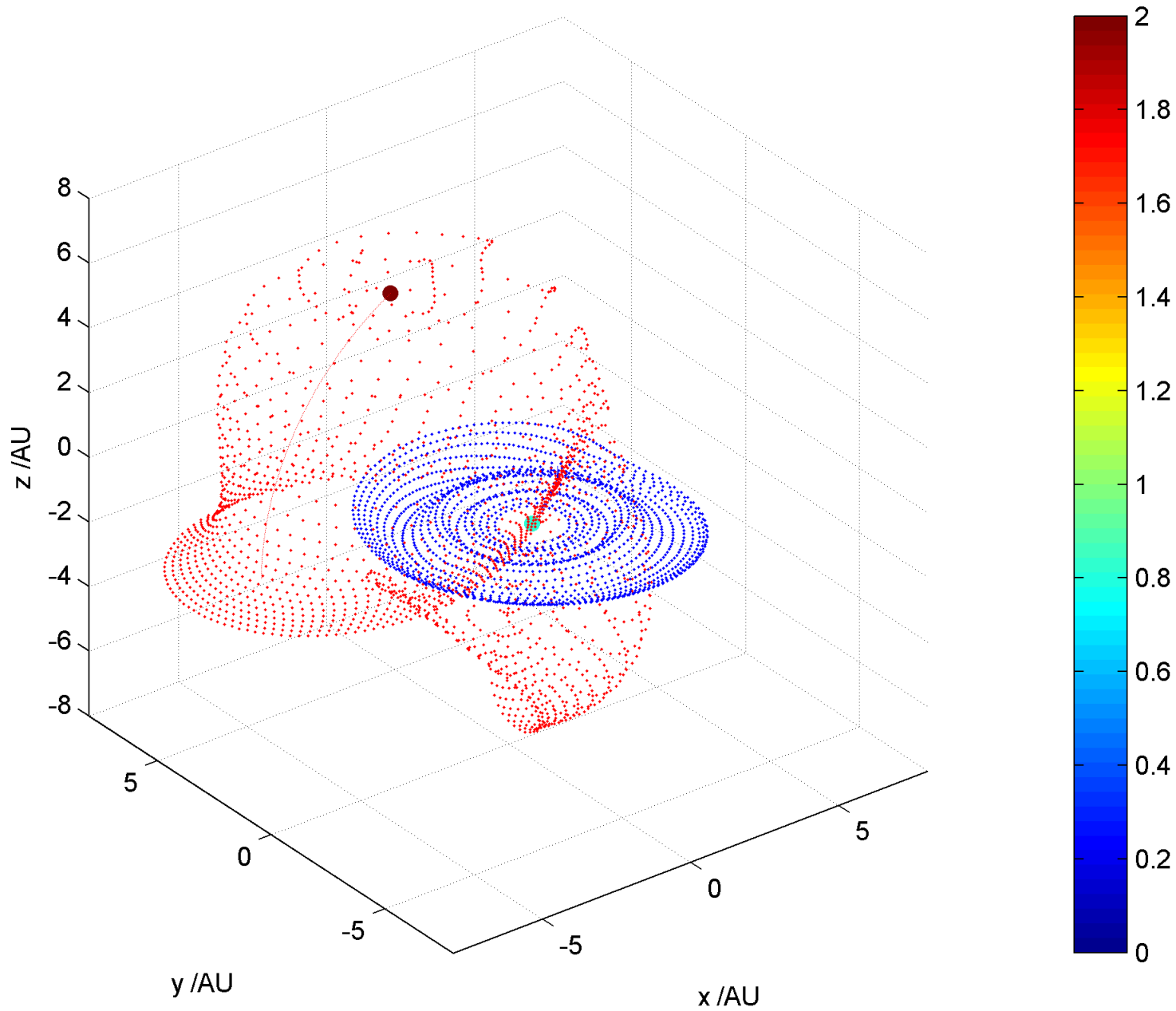


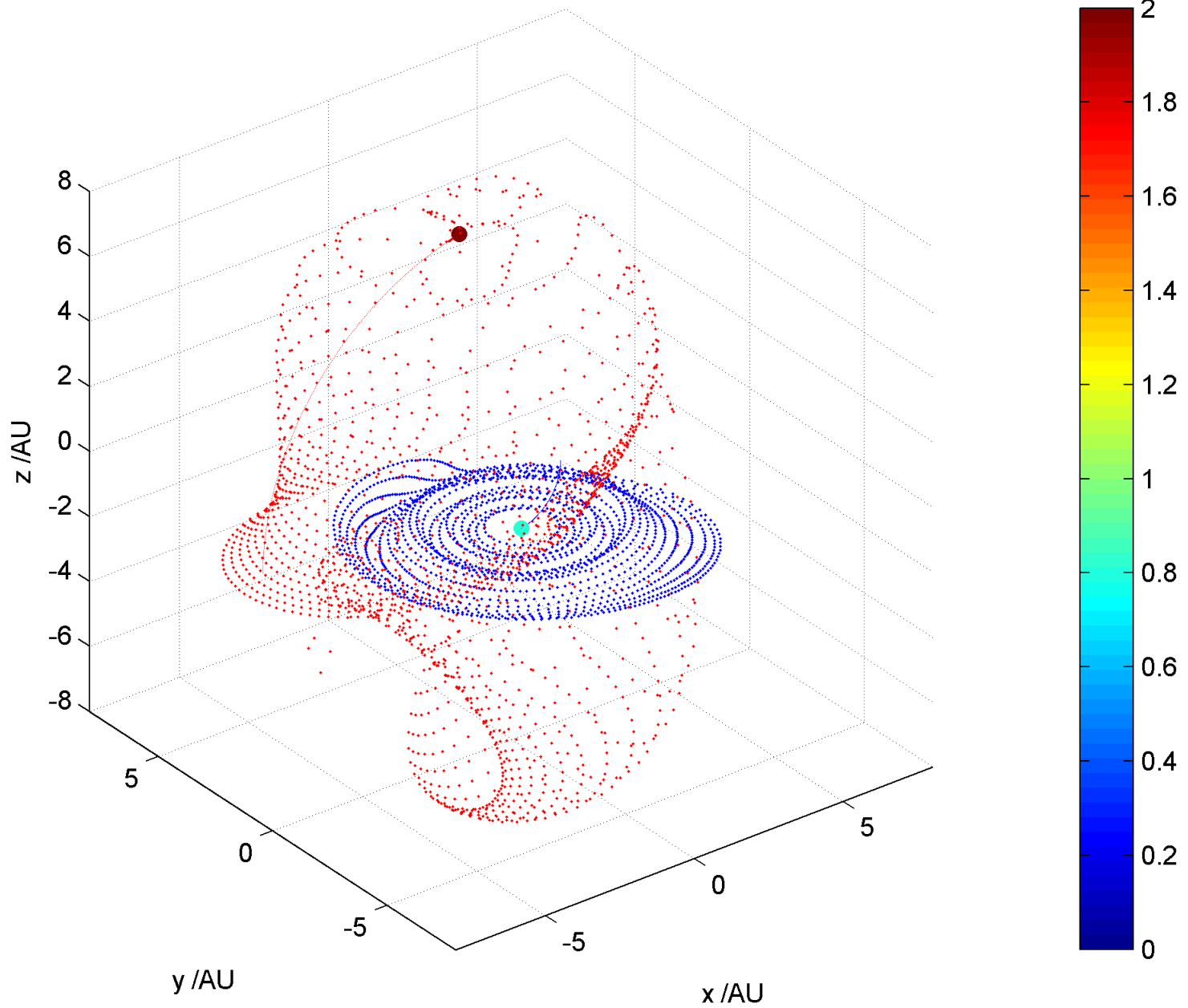
gravity



Gravity sim: $M_1/M_2 = 0.2$. $t = 2.2$ years.



Gravity sim: $M_1/M_2 = 0.2$. $t = 2.79$ years.



File Edit Debug Desktop Window Help

Y:\Societies\ProgSoc\MATLAB\AF\Simulations\

Shortcuts How to Add What's New

Current Folder << Gravity >> functions

Workspace

Name	Value	Min	Max
AUmax	8	8	
M1	1	1	
M2	1	1	
M3	0.5000	0.5000	
clusters	<1x1 struct>		
masses	<1x3 struct>		
rings	<1x1 struct>		
s	5	5	
title_str	'M1 = 1, M2 = 1'		
view_option	3	3	
vmax	10	10	
vx1	0	0	
vx2	0	0	
vy1	1.9906	1.9906	
vy2	-1.9906	-1.9906	

Details

Command Window

```
clusters =

          xc: 2.5000
          yc: 0
          zc: 0
        vxc: 0
        vyc: -1.9906
        vzc: 0
shell_separation_AU: 0.2000
      num_shells: 10
num_masses_per_square_AU: 5
  first_shell_radius: 1
    mass_at_centre: 1
      marker_RGB: [0 0 1]
```

Start

File Edit Text Go Cell Tools Debug Desktop Window Help

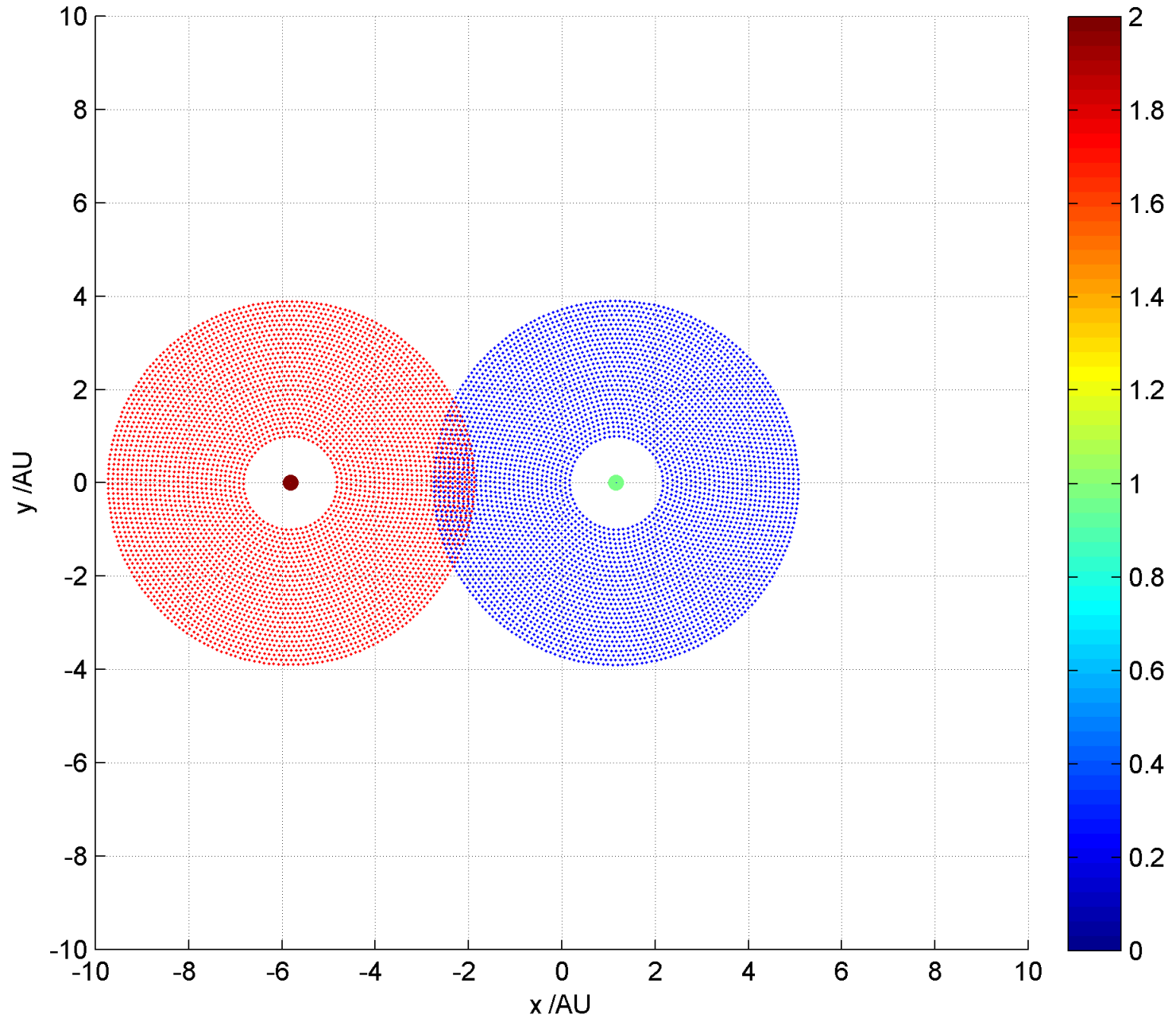
1.0 1.1

```
1 %gravity_sim_test
2
3 vmax = 10;
4 AUmax = 8;
5 view_option = 3;
6
7 %Compute initial orbital parameters
8 %in a circular fashion about their
9
10 %Star masses in Solar masses
11 M1 = 1;
12 M2 = M1;
13 M3 = 0.5*M1;
14
15 %Gravity sim title
16 title_str = ['M1 = ', num2str(M1), ',
17
18 %Star separation /AU
19 s = 5;
20
21 %Compute two star orbital parameter
22 [vx1,vx2,vy1,vy2,vz1,vz2,x1,y1,z1,x
23 two_body_circular_init( M1, M2,
24
25 %Star 1
```

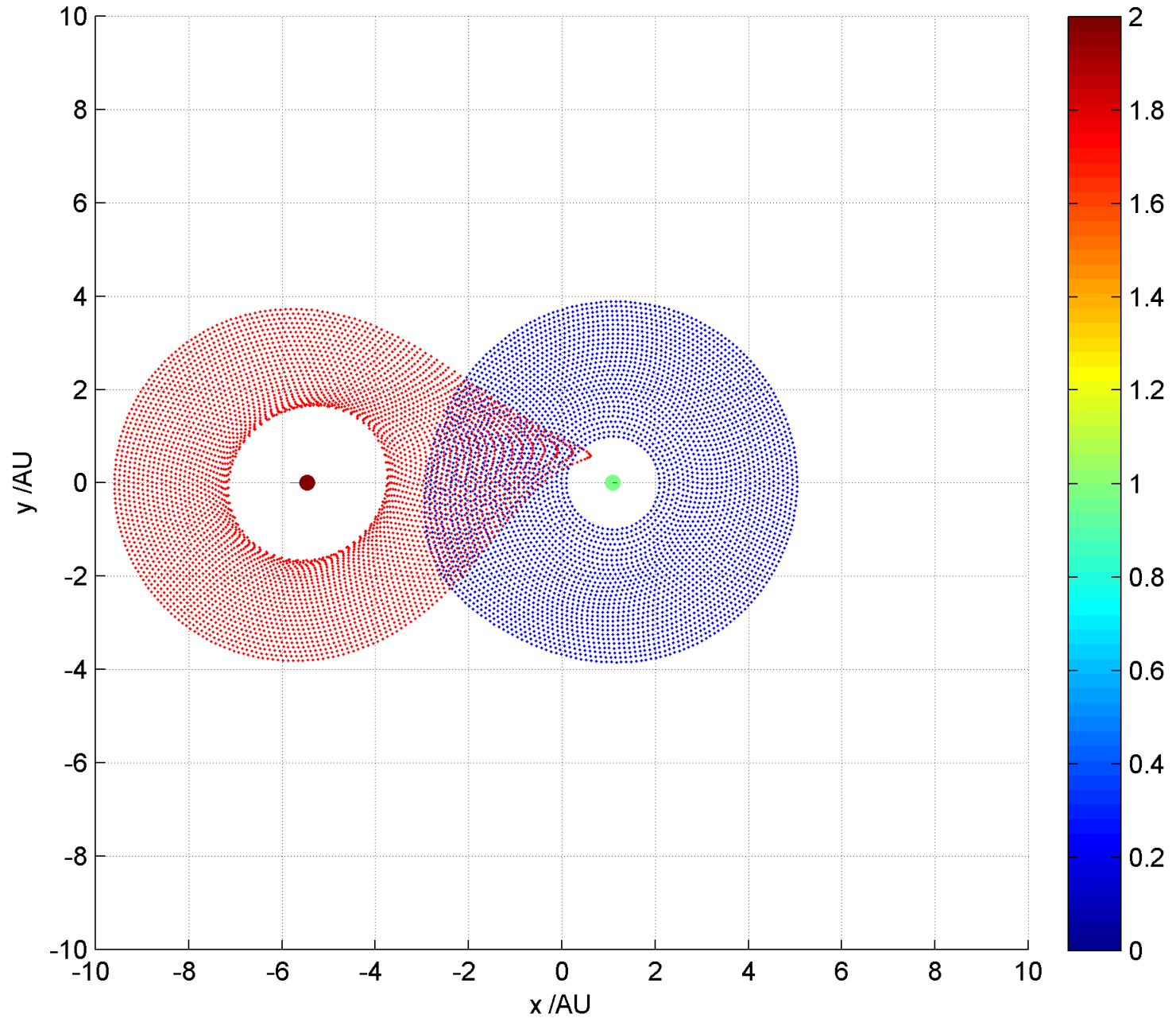
script

Ln 13 Col 13

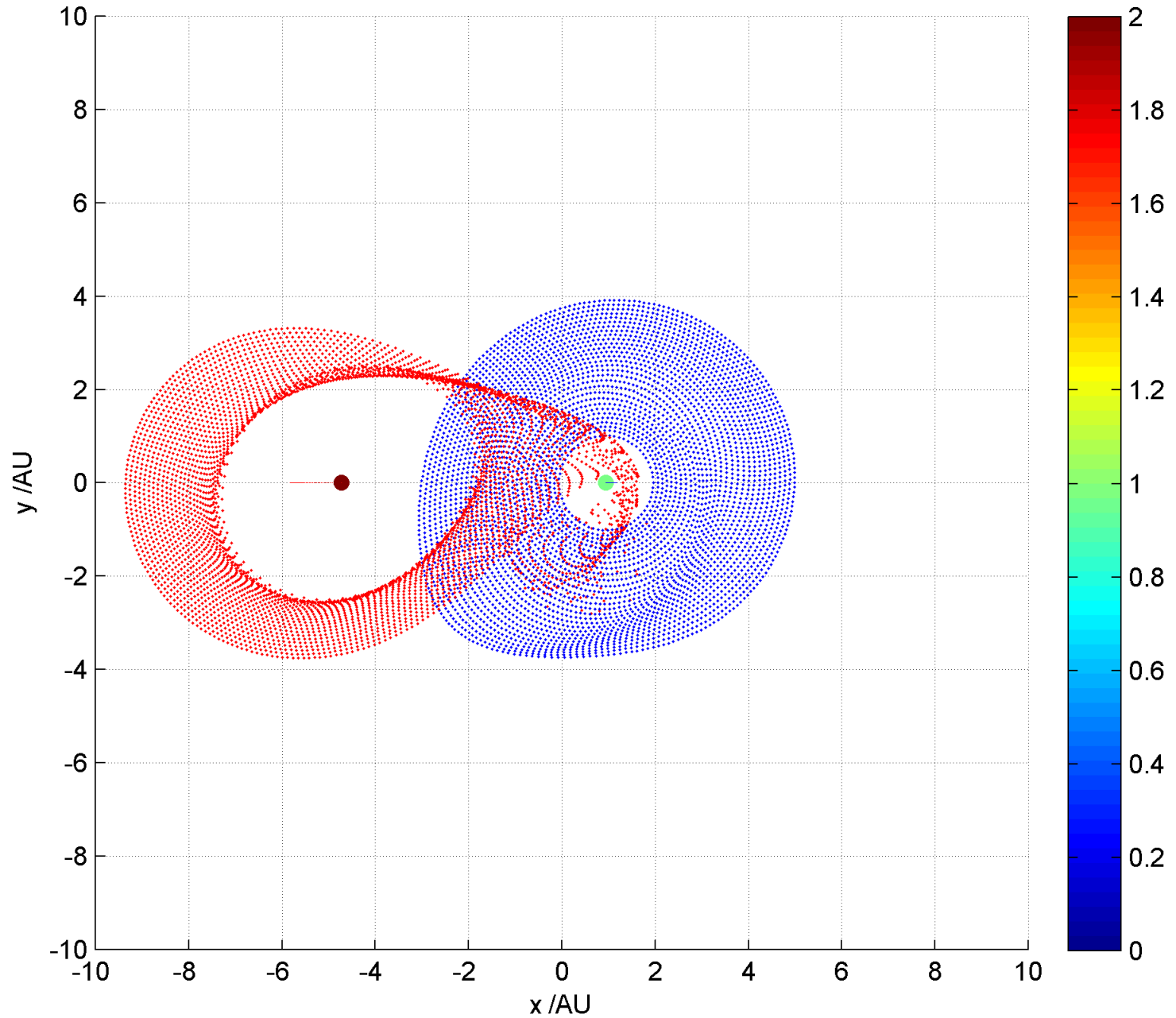
Gravity sim: $M_1/M_2 = 0.2$. $t = 0.07$ years.



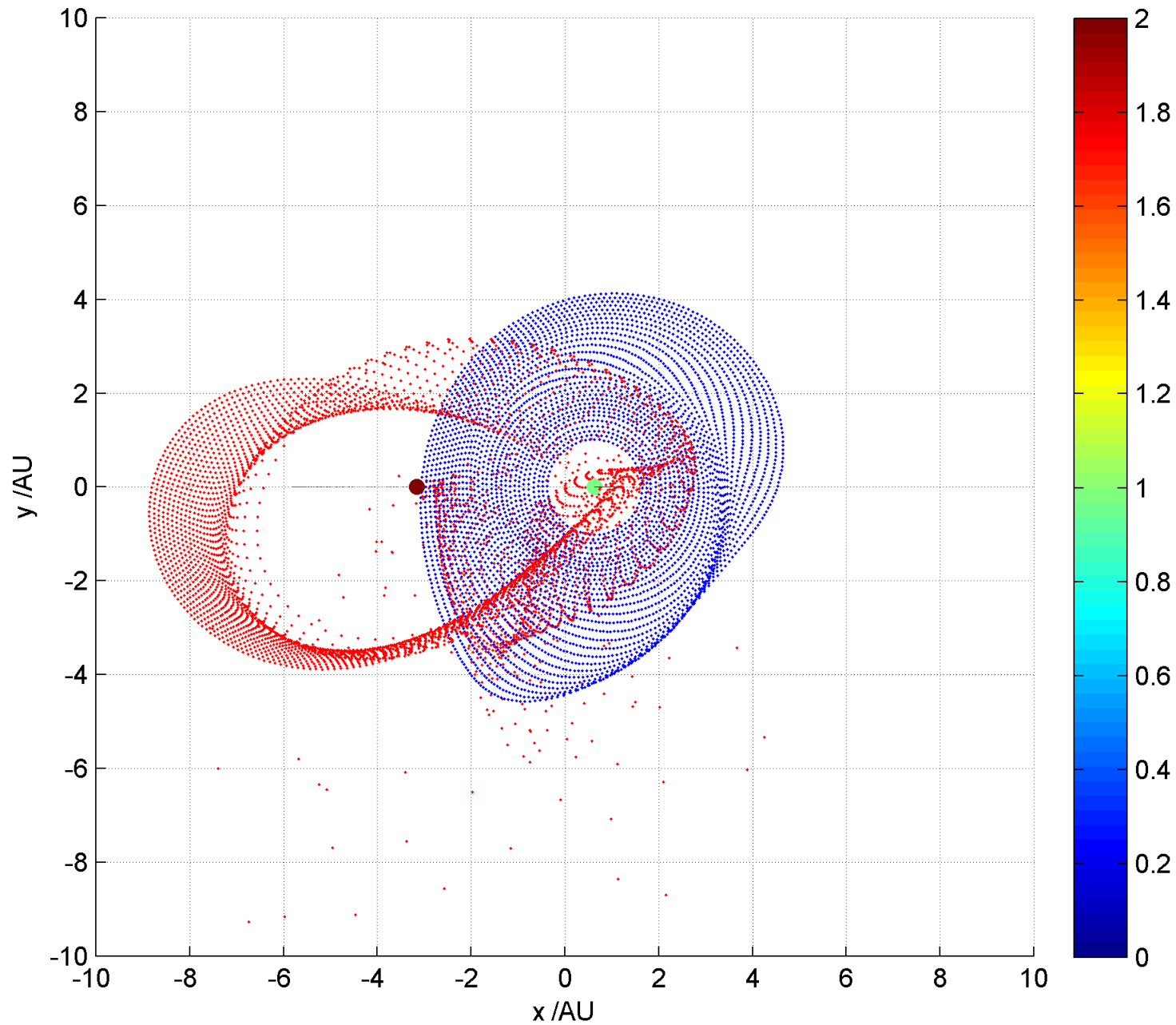
Gravity sim: $M_1/M_2 = 0.2$. $t = 0.43$ years.



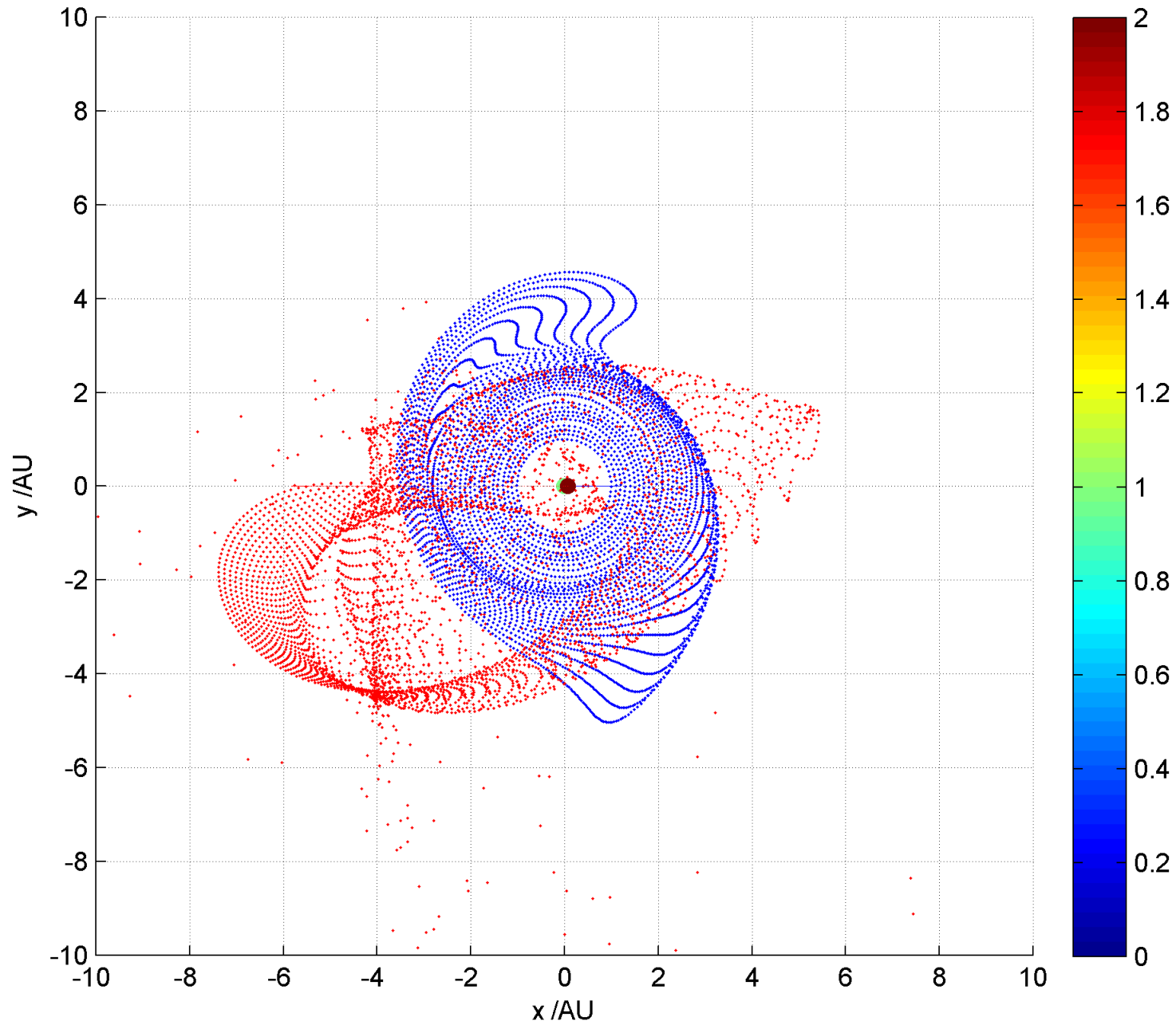
Gravity sim: $M_1/M_2 = 0.2$. $t = 0.75$ years.



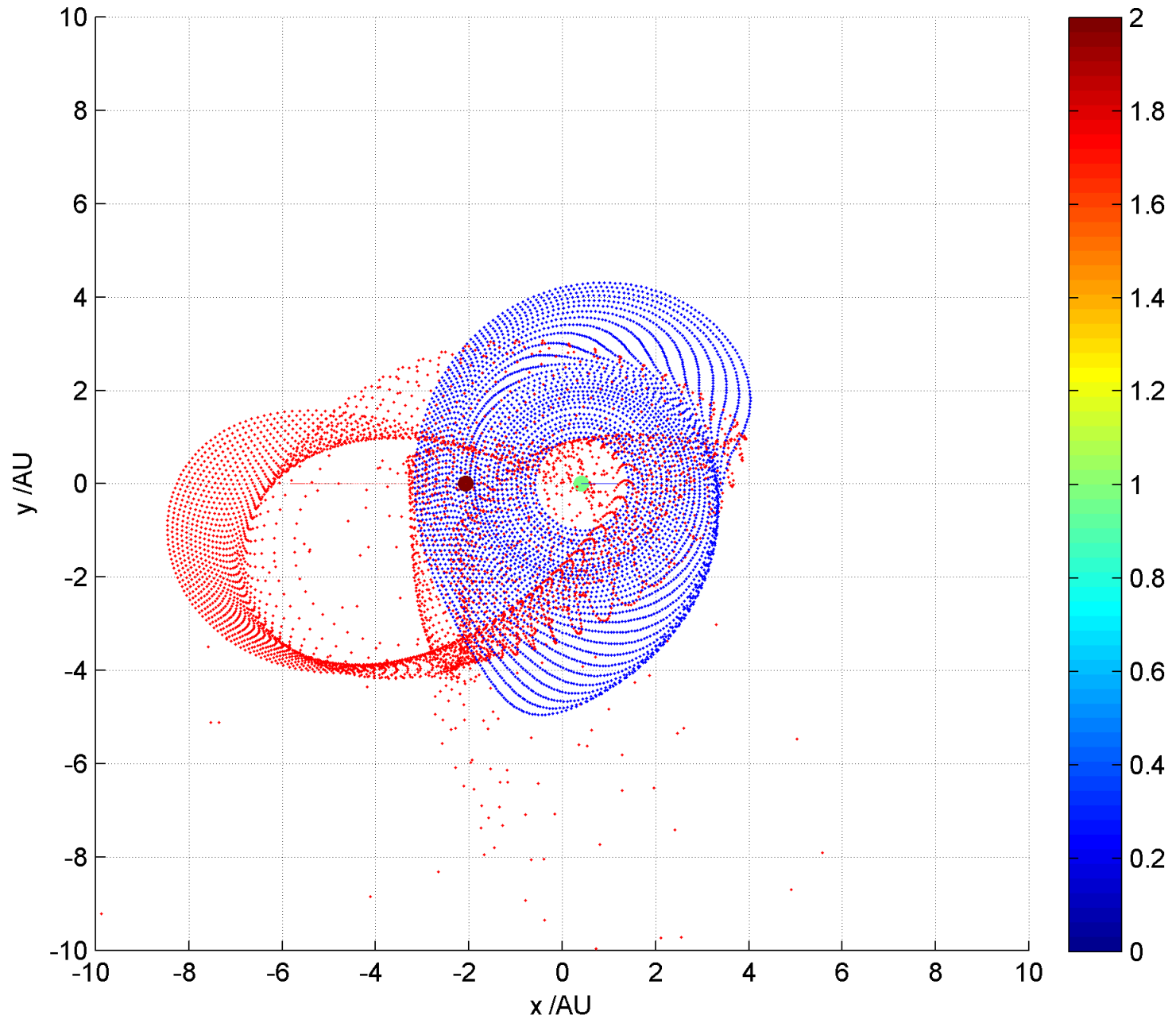
Gravity sim: $M_1/M_2 = 0.2$. $t = 1.2$ years.



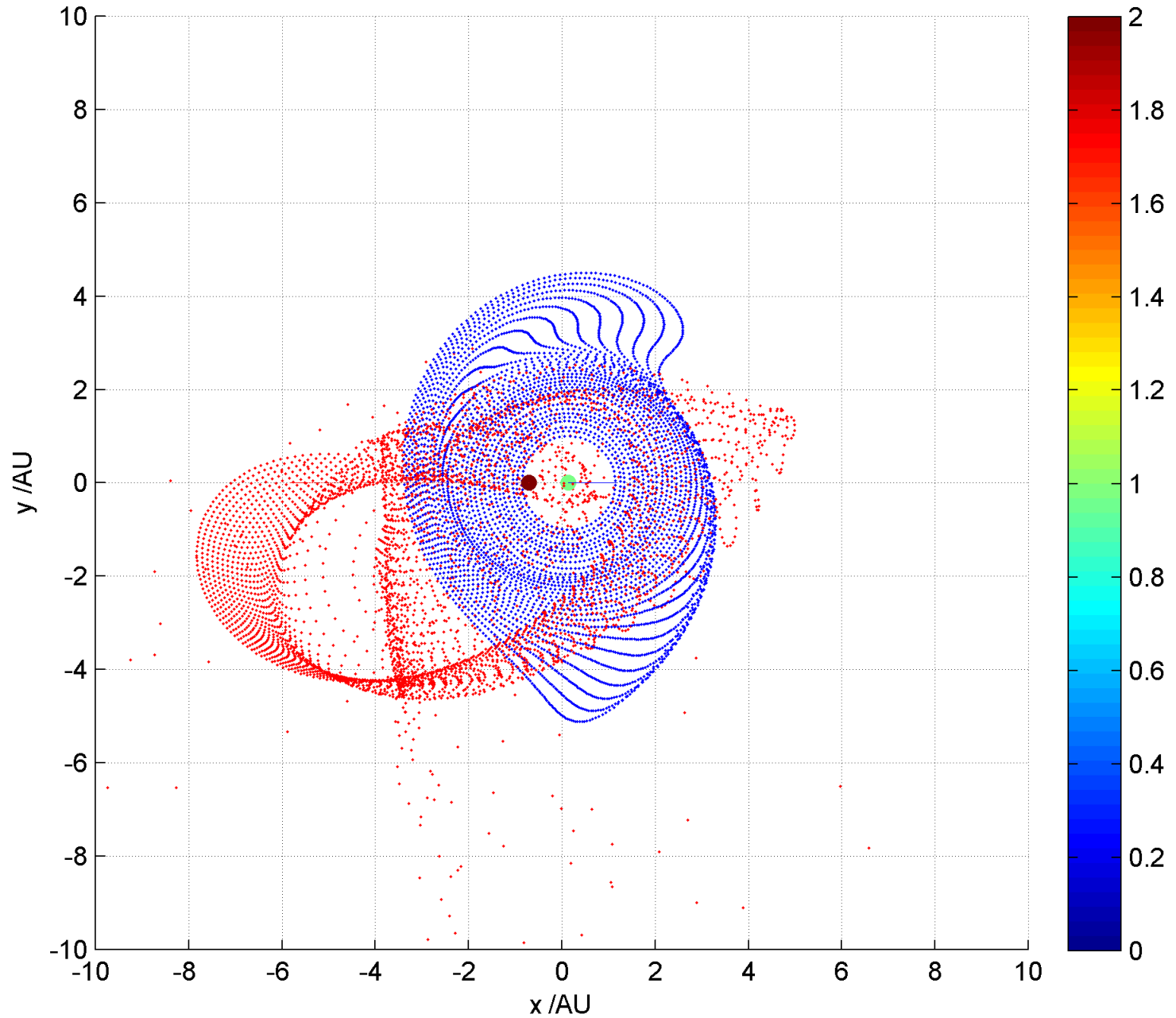
Gravity sim: $M_1/M_2 = 0.2$. $t = 1.9$ years.



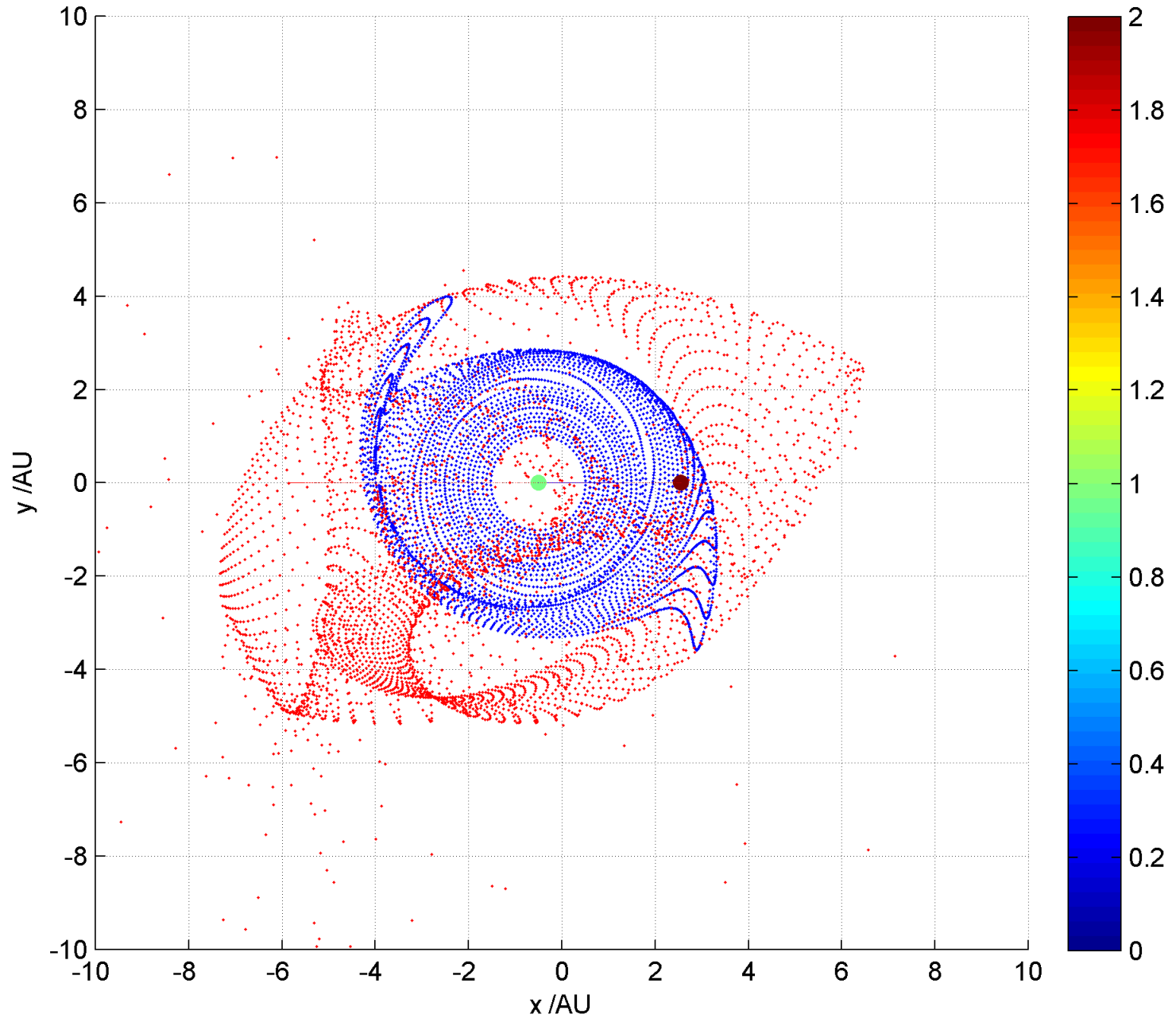
Gravity sim: $M_1/M_2 = 0.2$. $t = 1.45$ years.



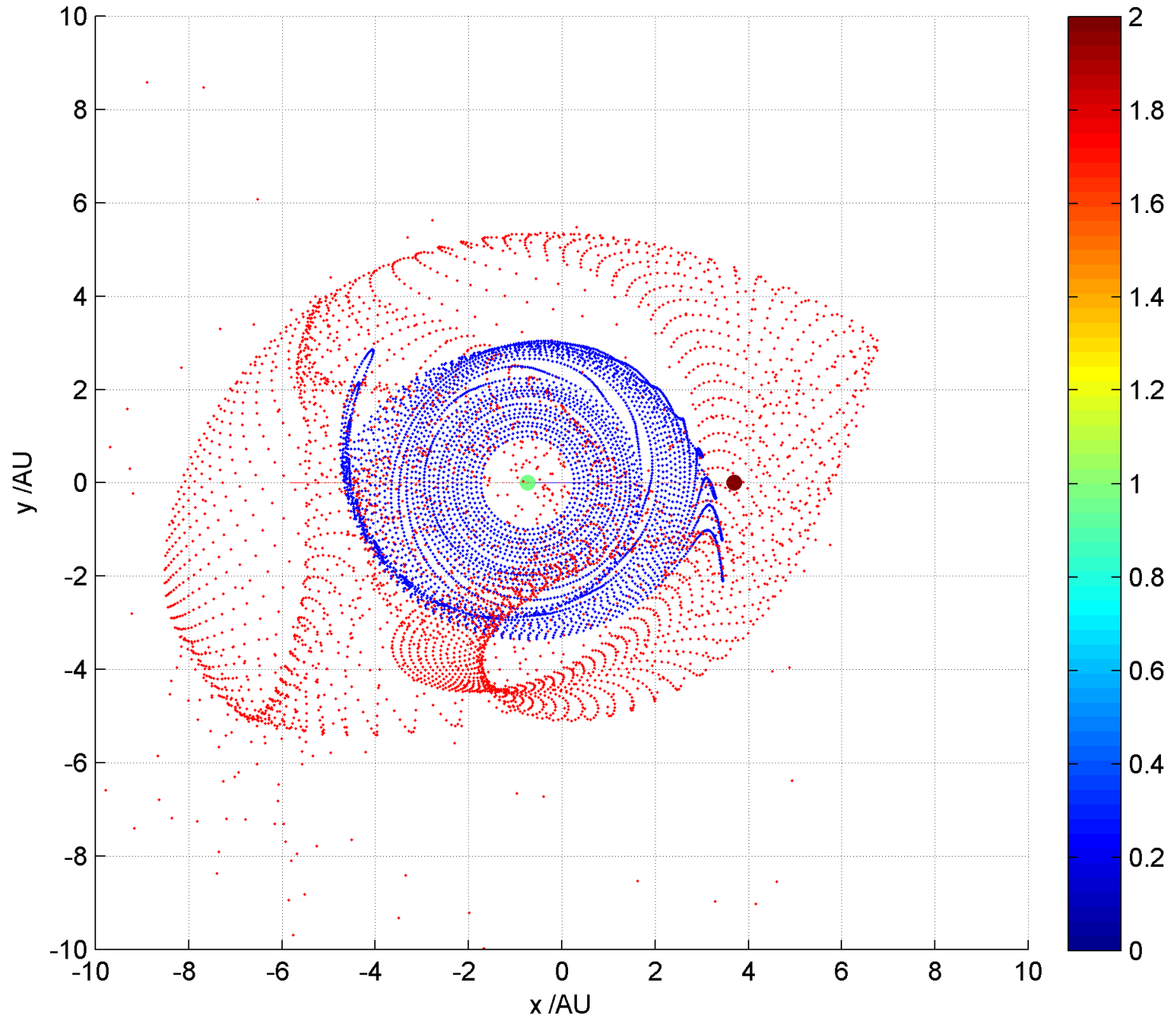
Gravity sim: $M_1/M_2 = 0.2$. $t = 1.74$ years.



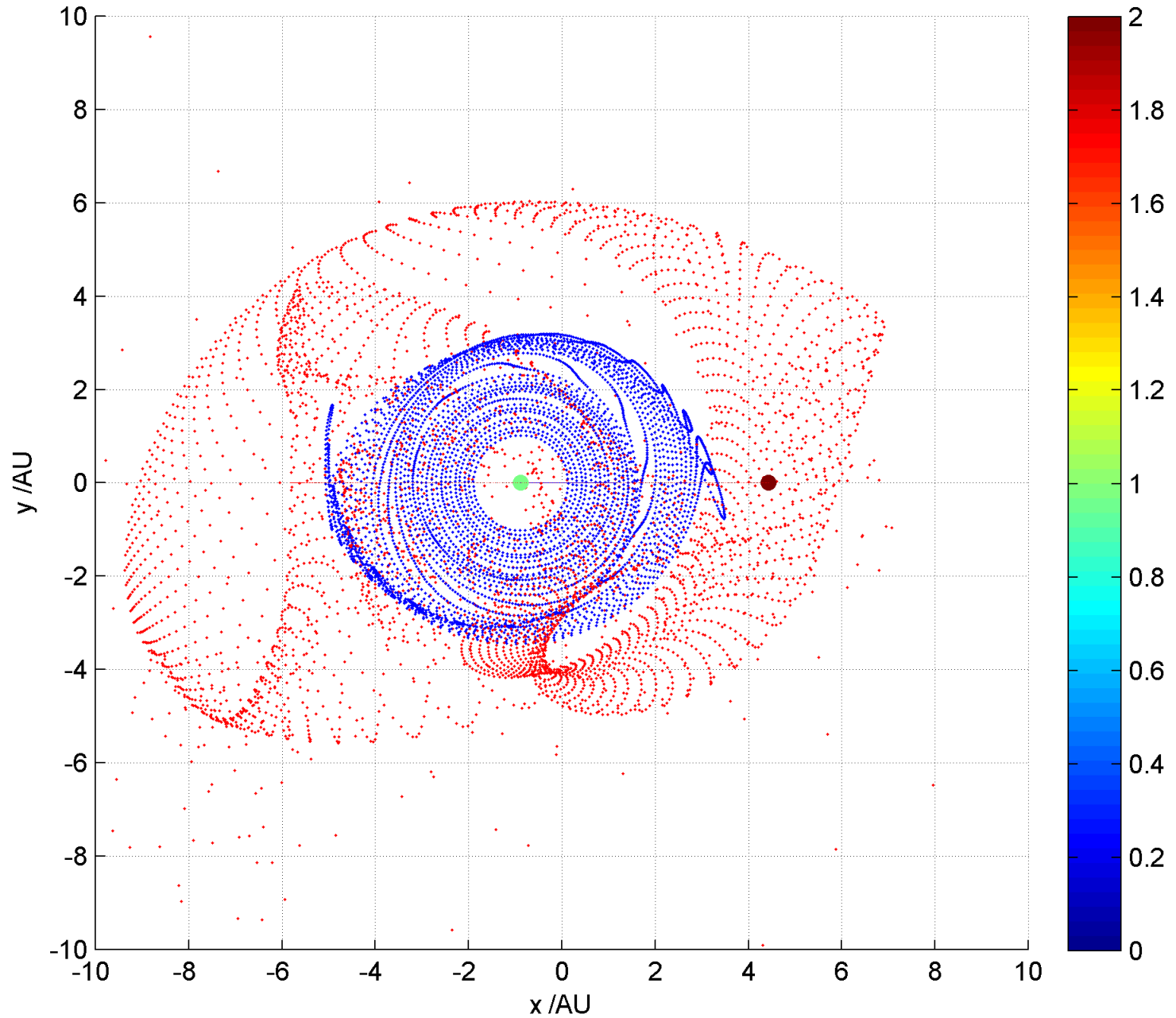
Gravity sim: $M_1/M_2 = 0.2$. $t = 2.43$ years.



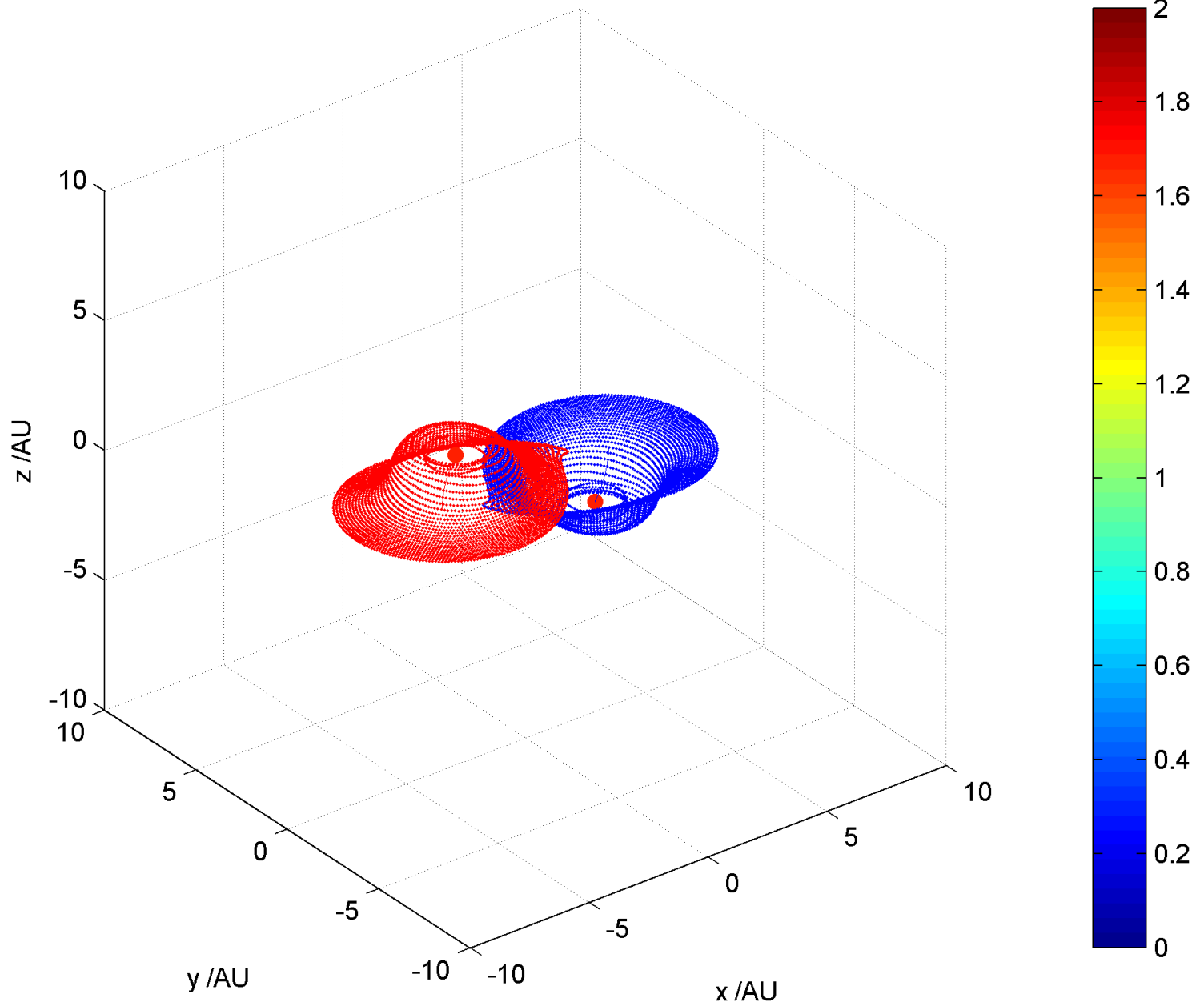
Gravity sim: $M_1/M_2 = 0.2$. $t = 2.71$ years.



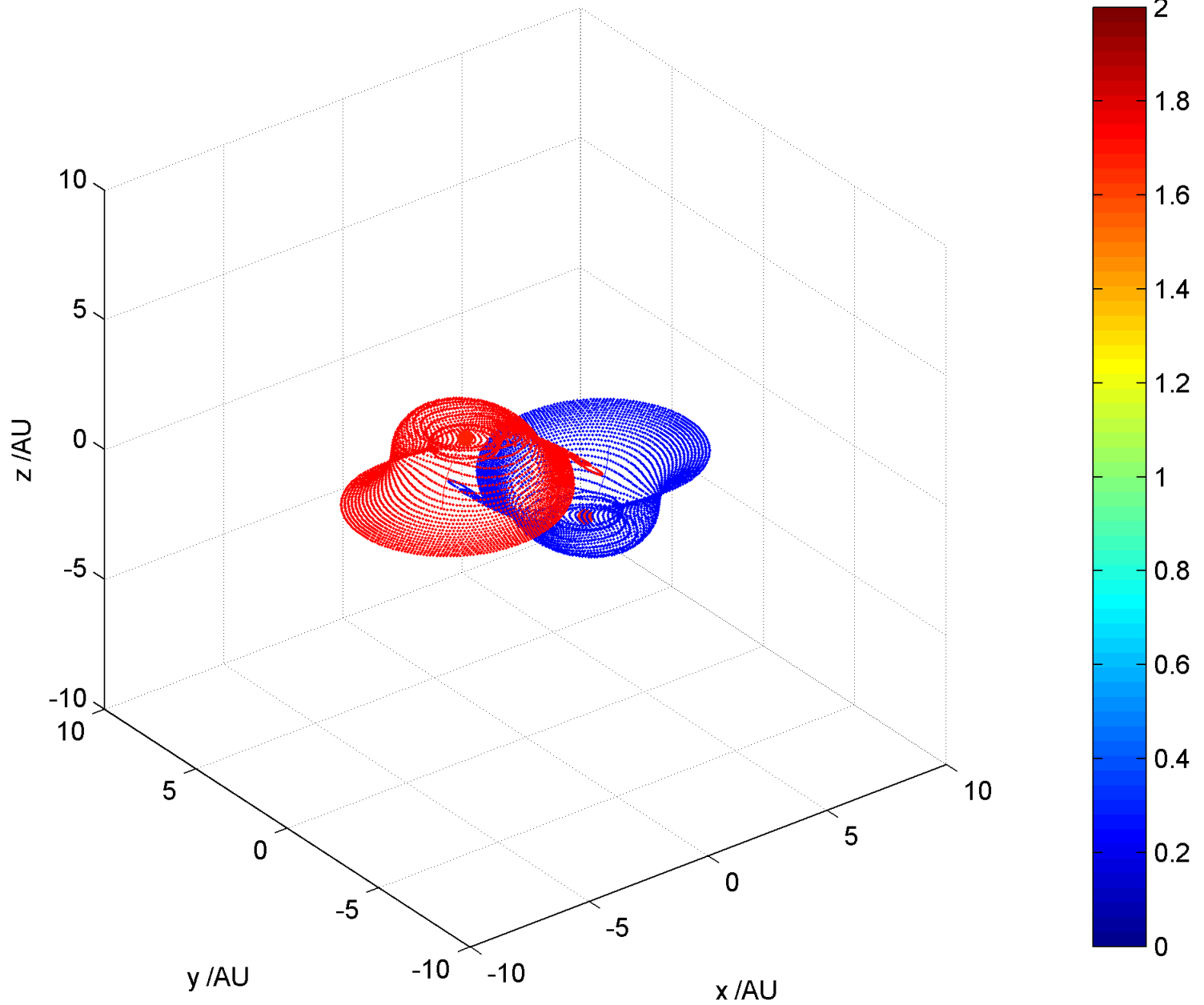
Gravity sim: $M_1/M_2 = 0.2$. $t = 2.92$ years.



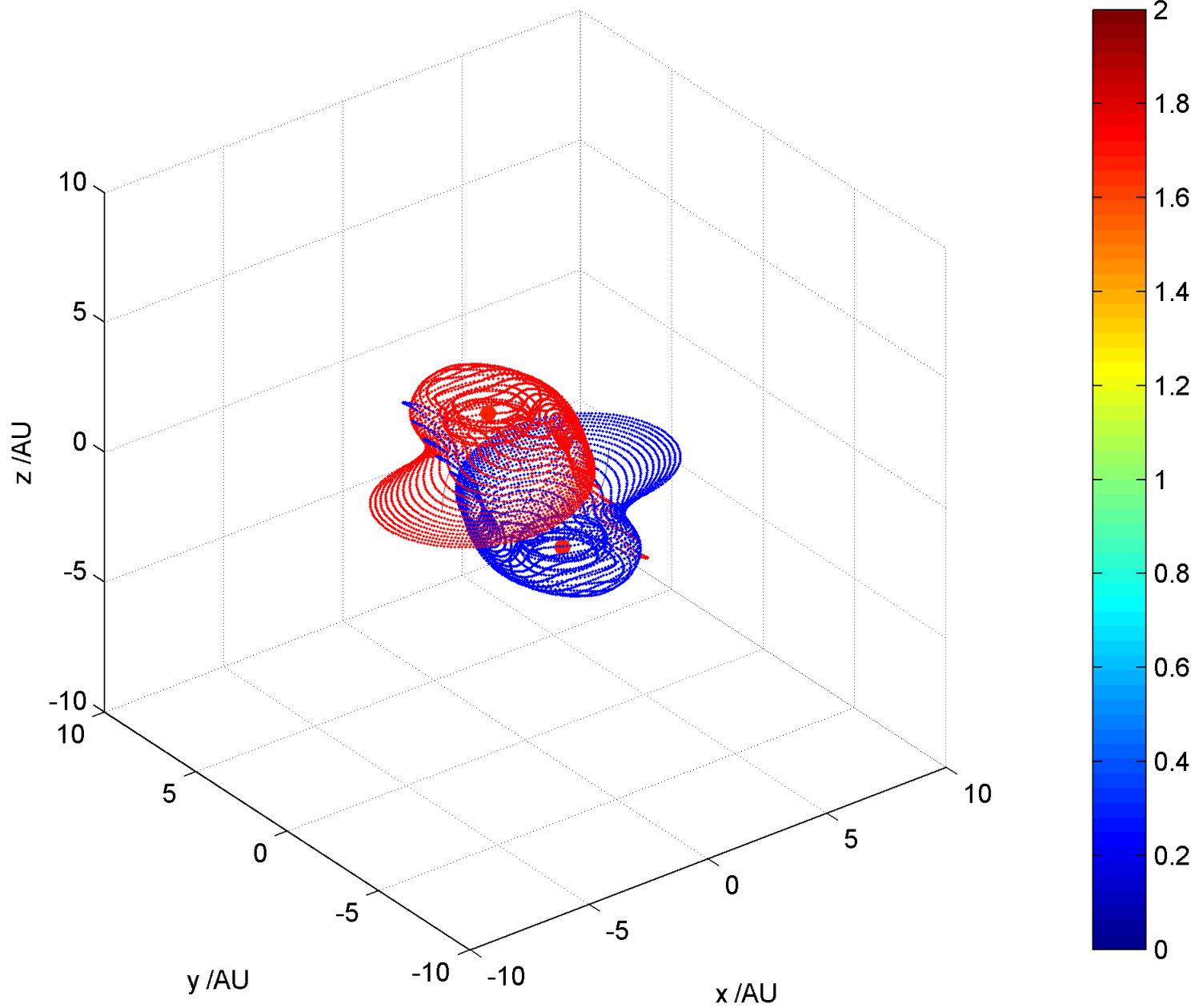
Gravity sim: $M_1/M_2 = 1$. $t = 1.21$ years.



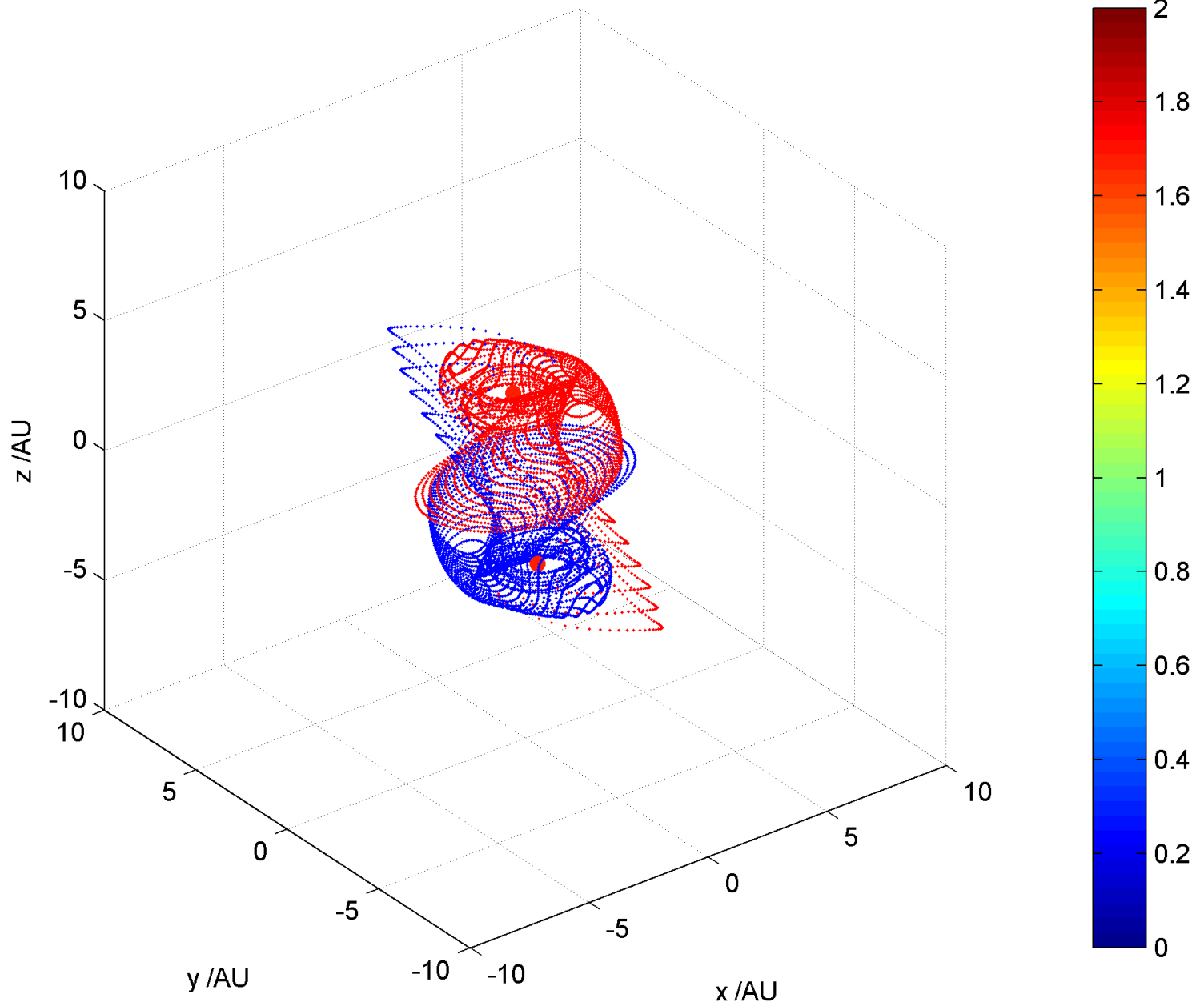
Gravity sim: $M_1/M_2 = 1$. $t = 1.58$ years.



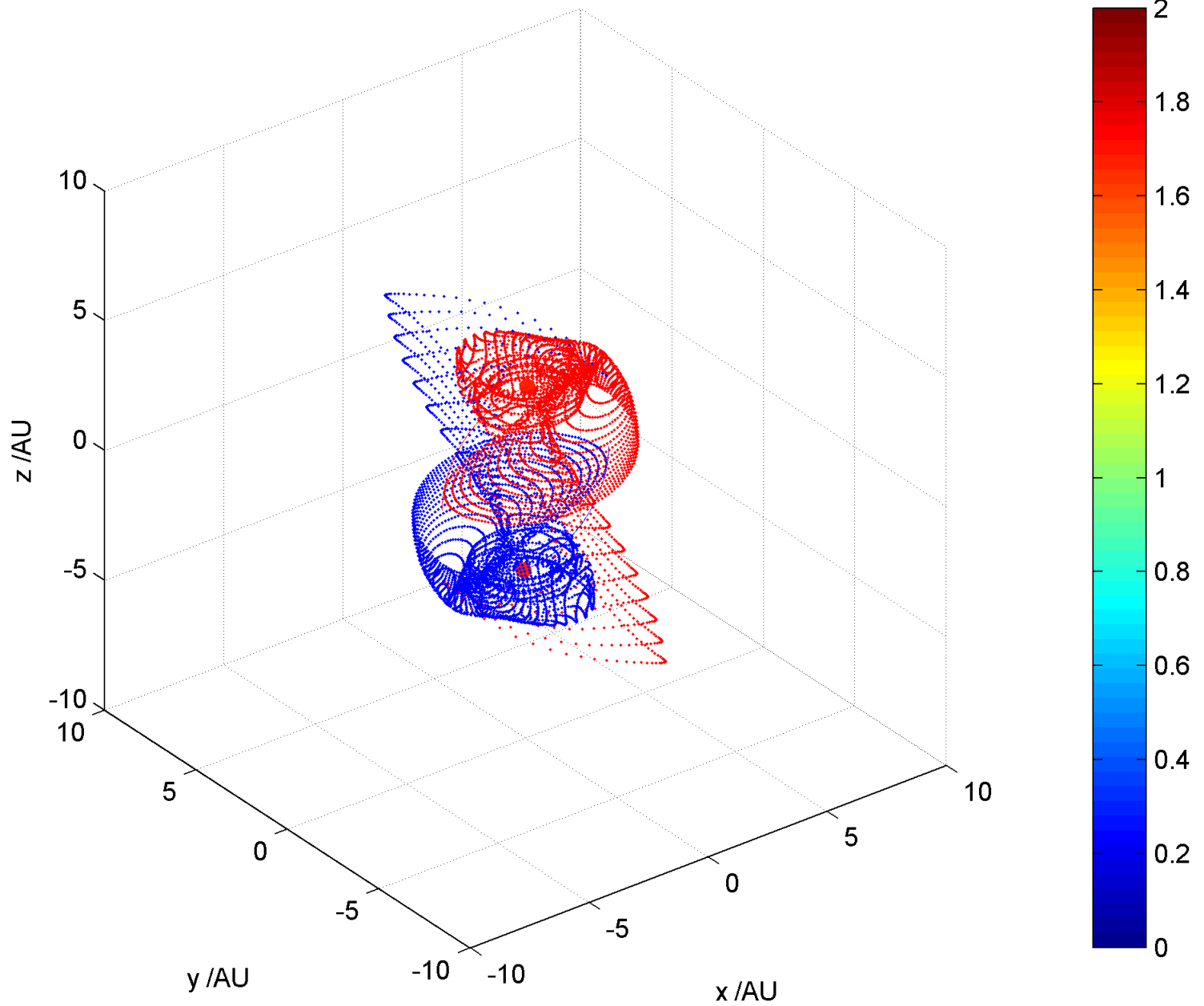
Gravity sim: $M_1/M_2 = 1$. $t = 2.3$ years.



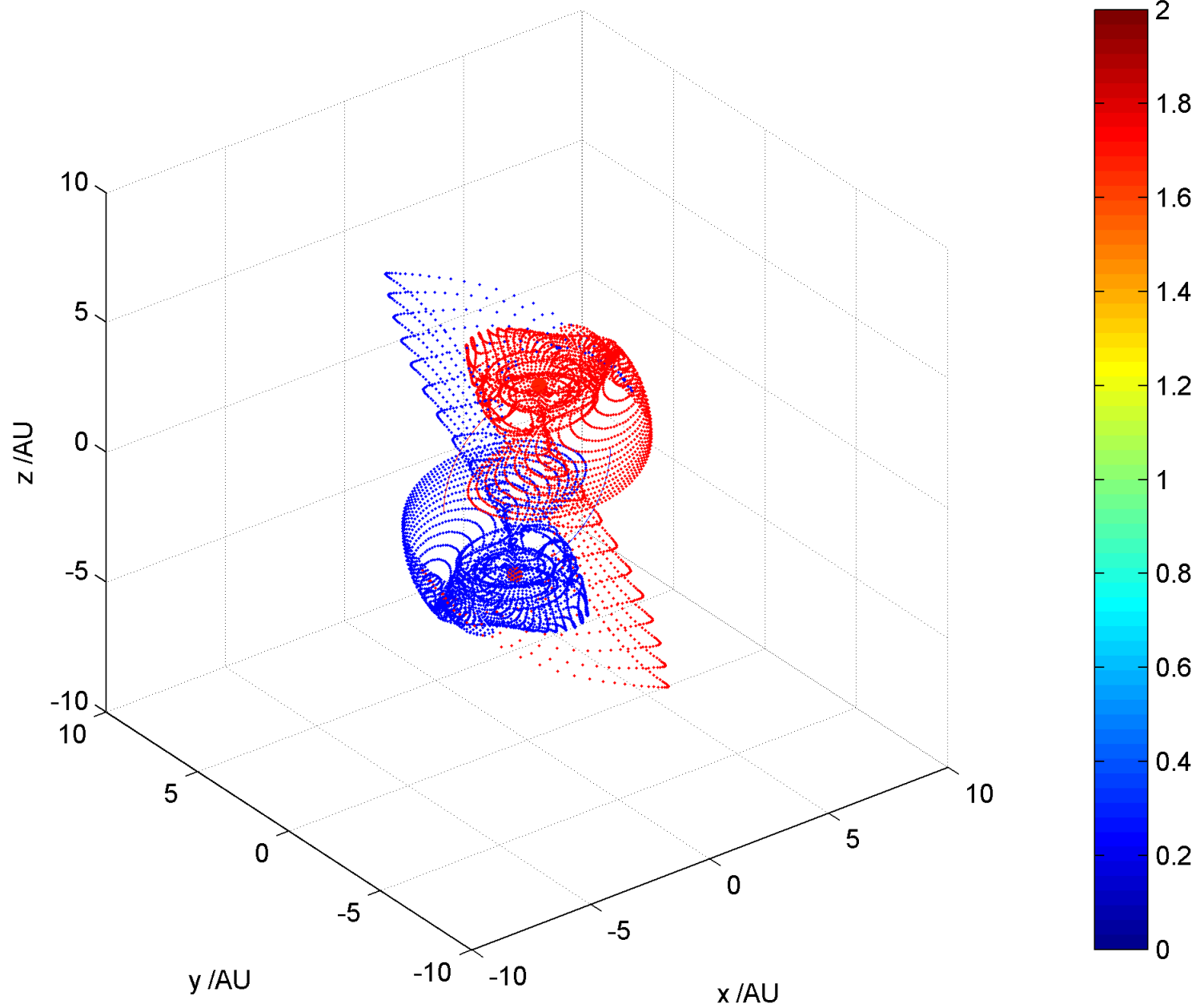
Gravity sim: $M_1/M_2 = 1$. $t = 2.97$ years.



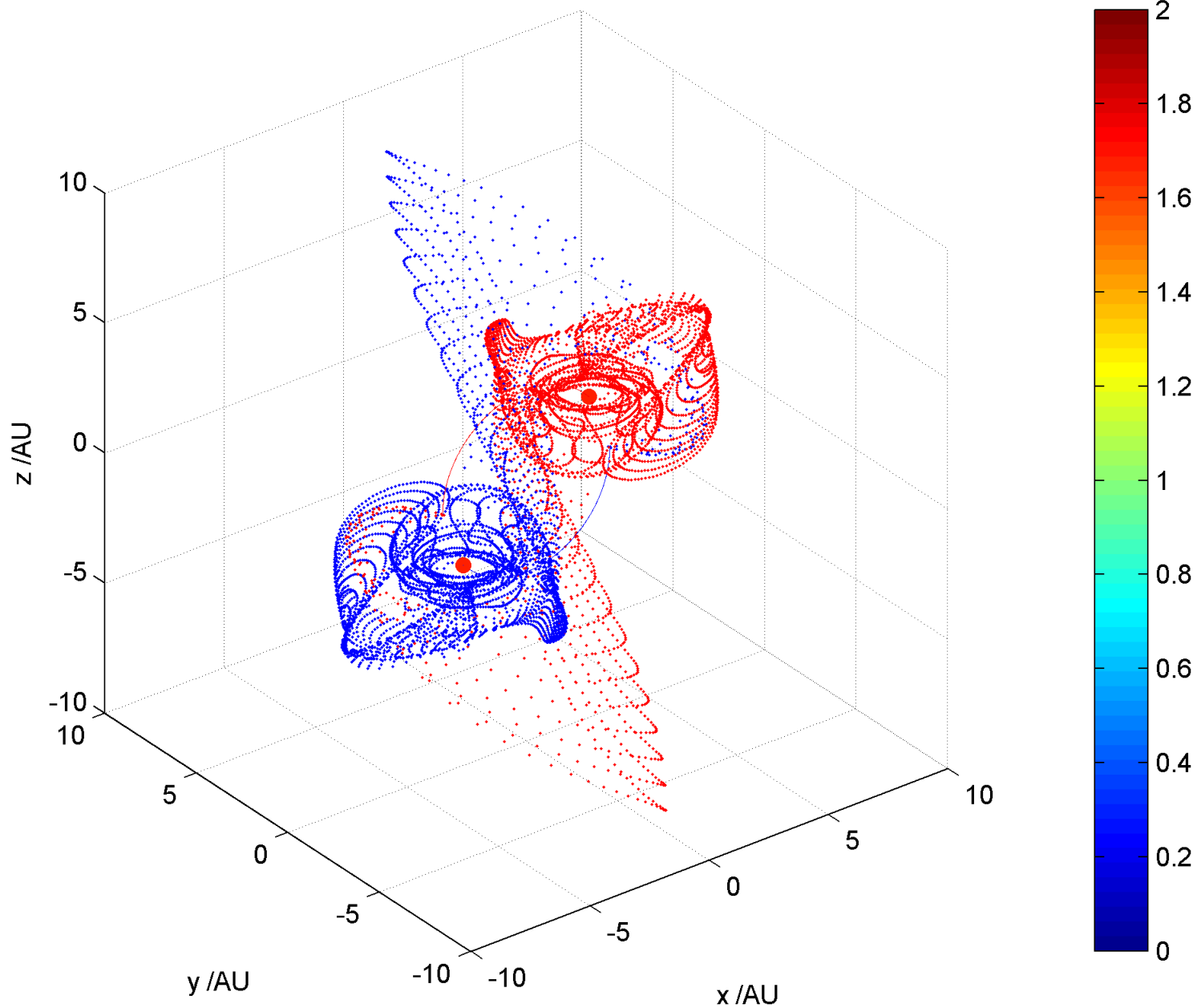
Gravity sim: $M_1/M_2 = 1$. $t = 3.32$ years.



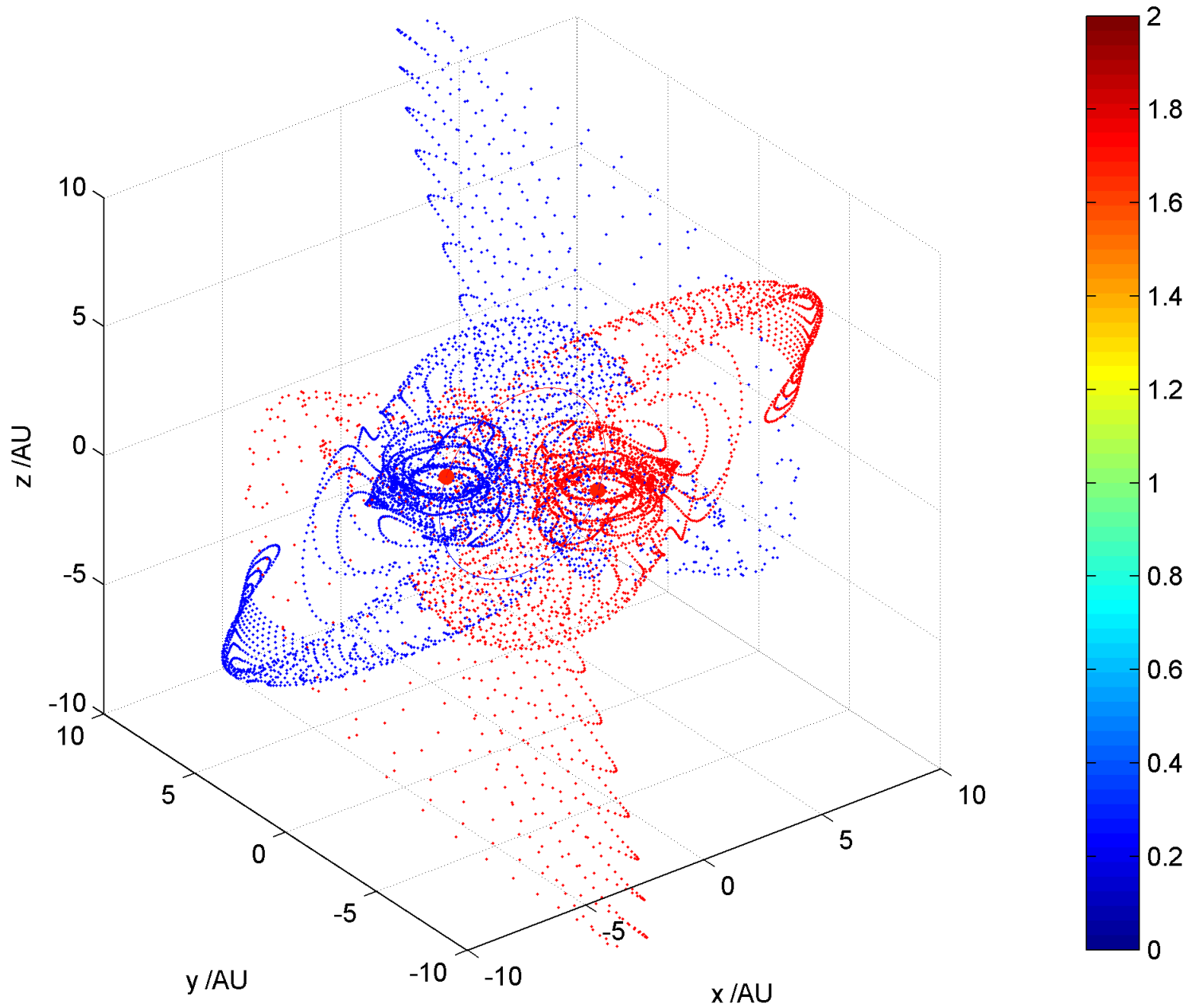
Gravity sim: $M_1/M_2 = 1$. $t = 3.57$ years.



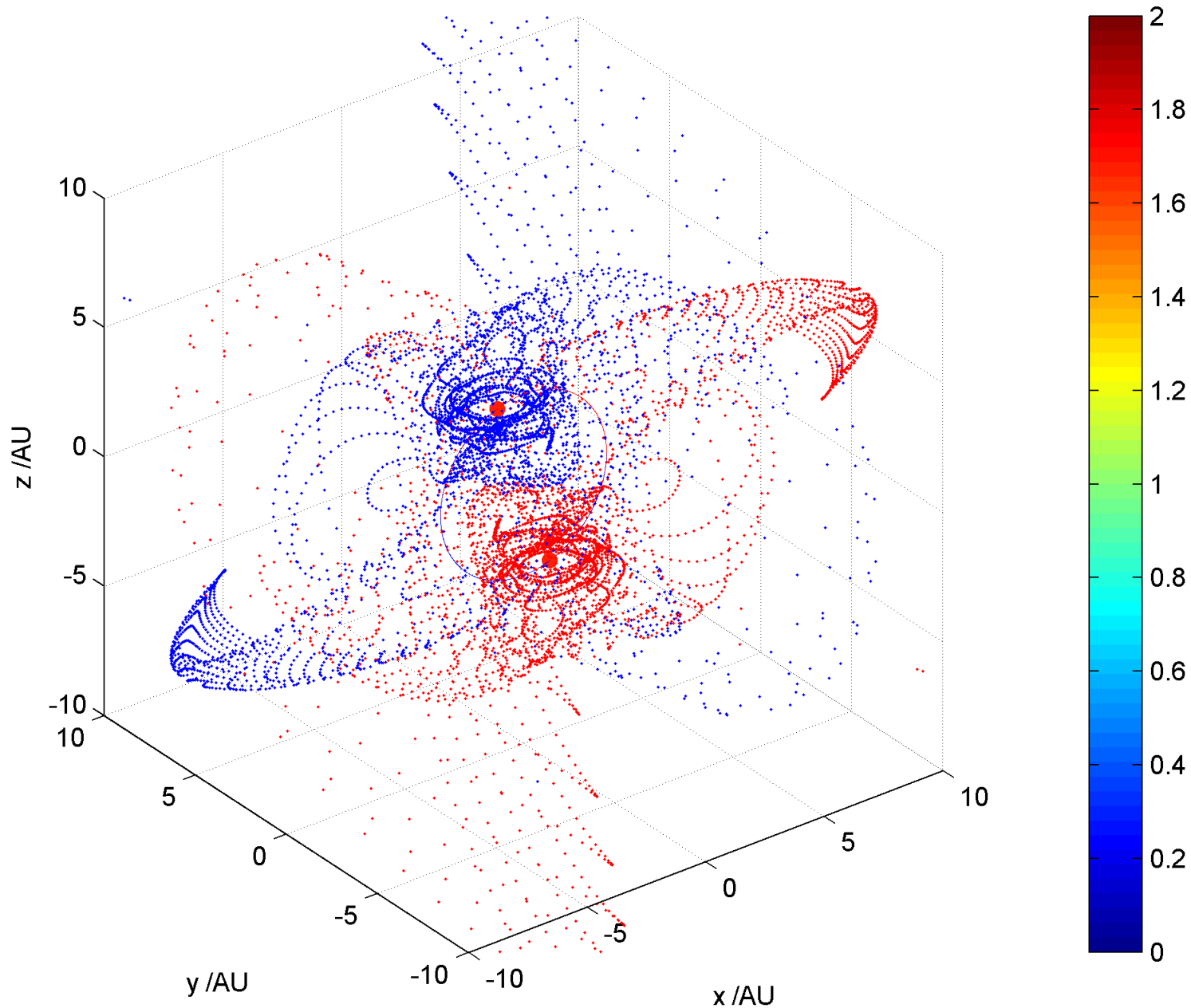
Gravity sim: $M_1/M_2 = 1$. $t = 5.04$ years.



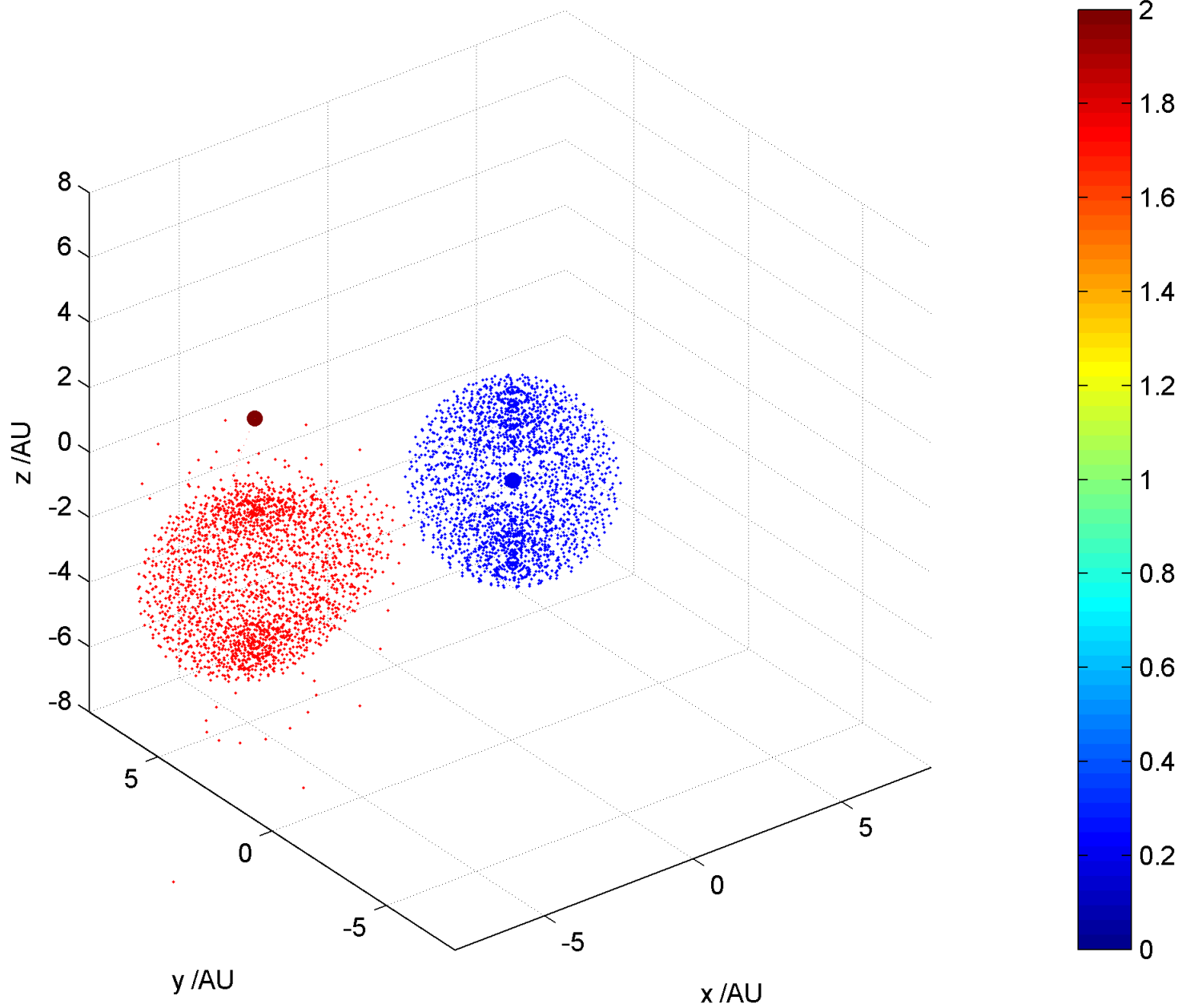
Gravity sim: $M_1/M_2 = 1$. $t = 7.39$ years.



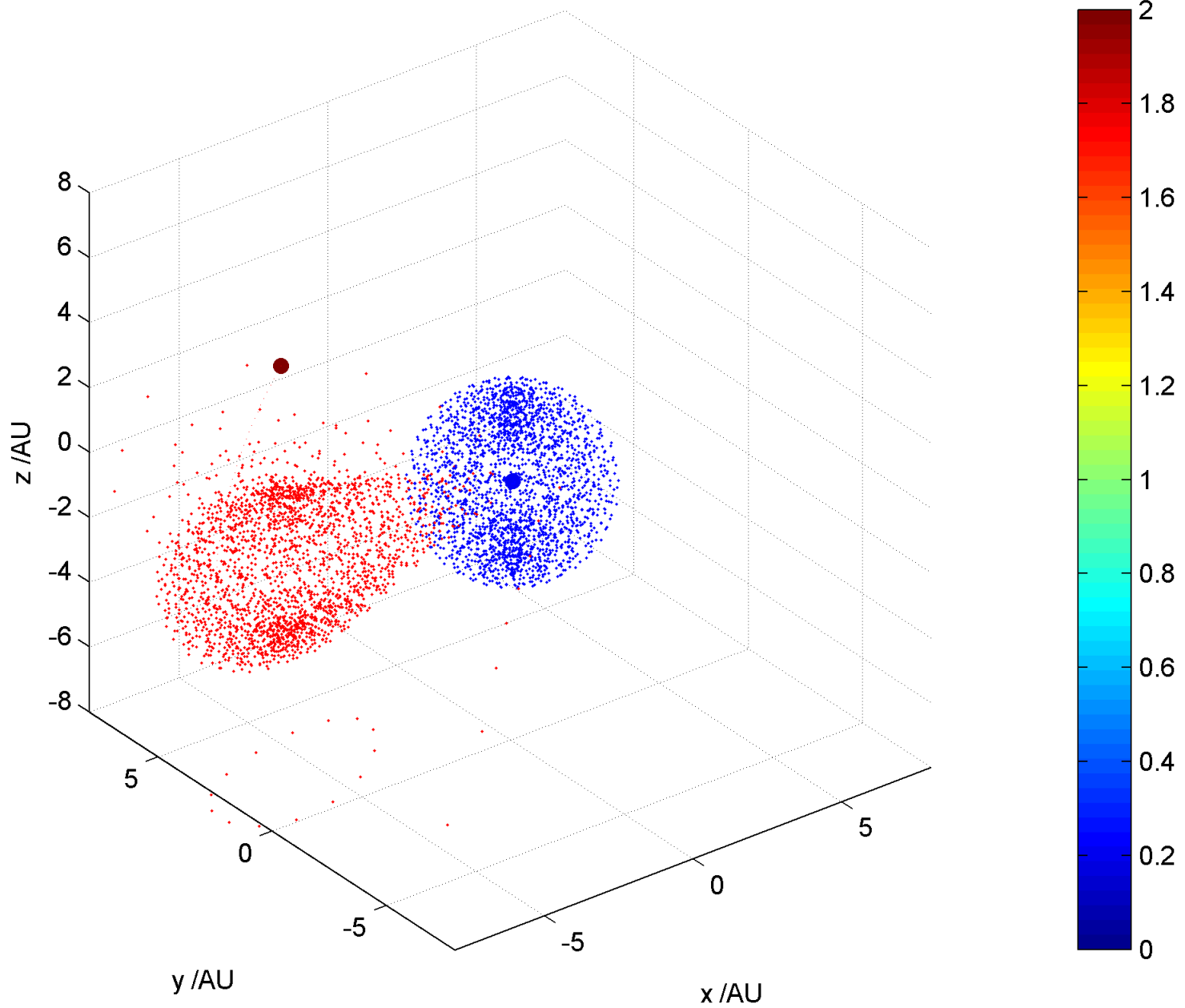
Gravity sim: $M_1/M_2 = 1$. $t = 9.13$ years.



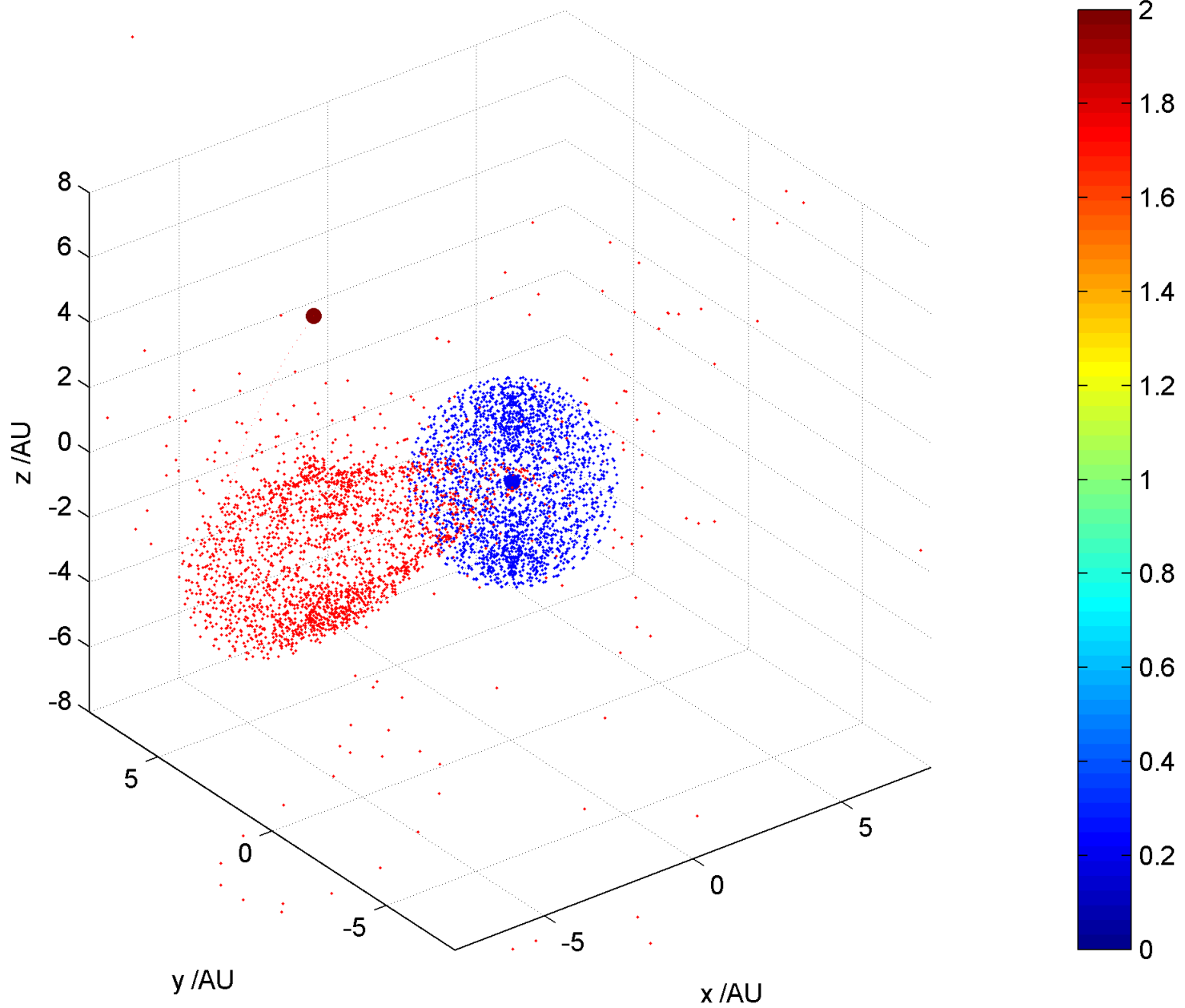
Gravity sim: $M_1/M_2 = 0.01$. $t = 0.26$ years.



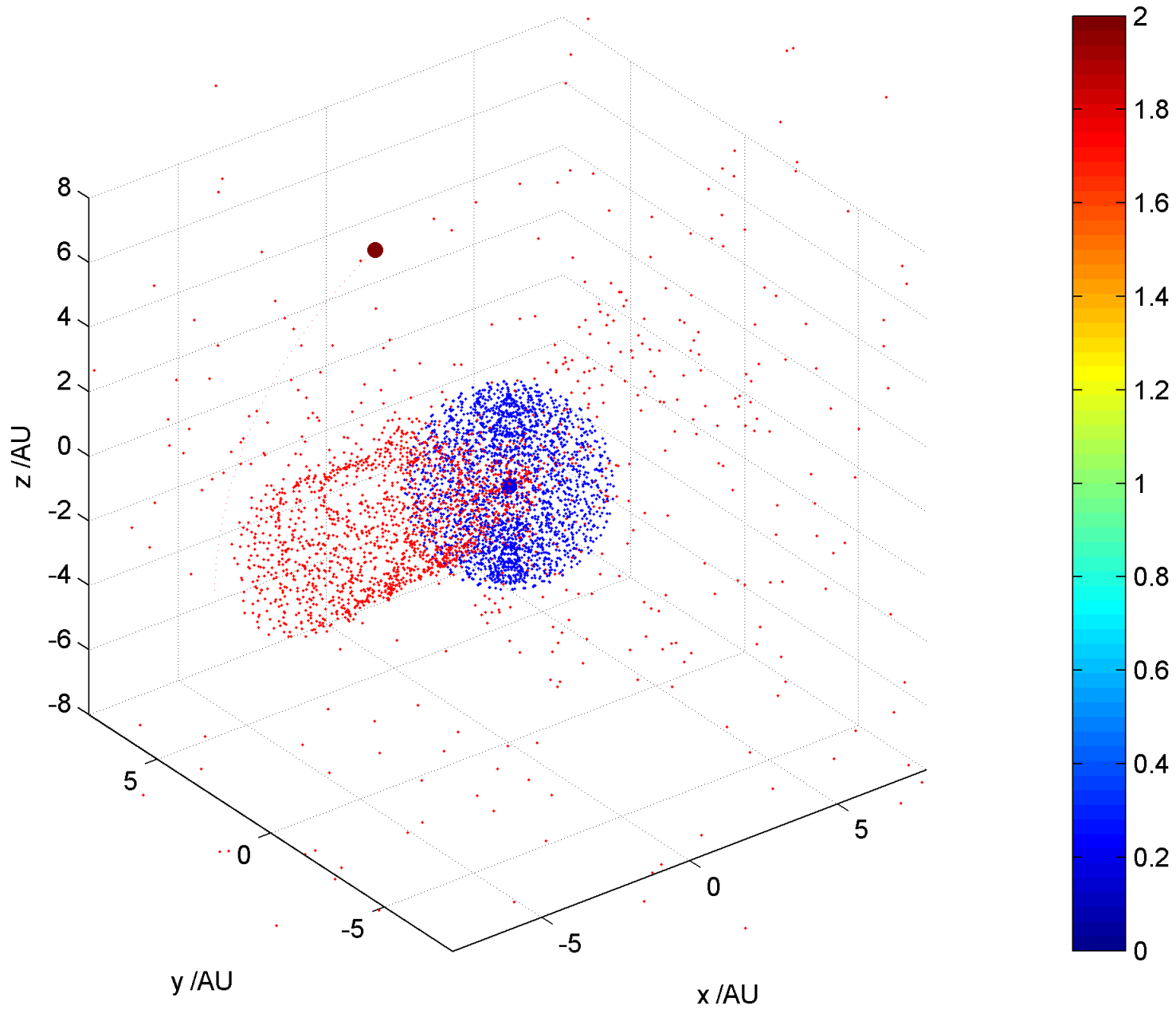
Gravity sim: $M_1/M_2 = 0.01$. $t = 0.34$ years.



Gravity sim: $M_1/M_2 = 0.01$. $t = 0.42$ years.



Gravity sim: $M_1/M_2 = 0.01$. $t = 0.55$ years.



Gravity sim: $M_1/M_2 = 0.01$. $t = 1.51$ years.

