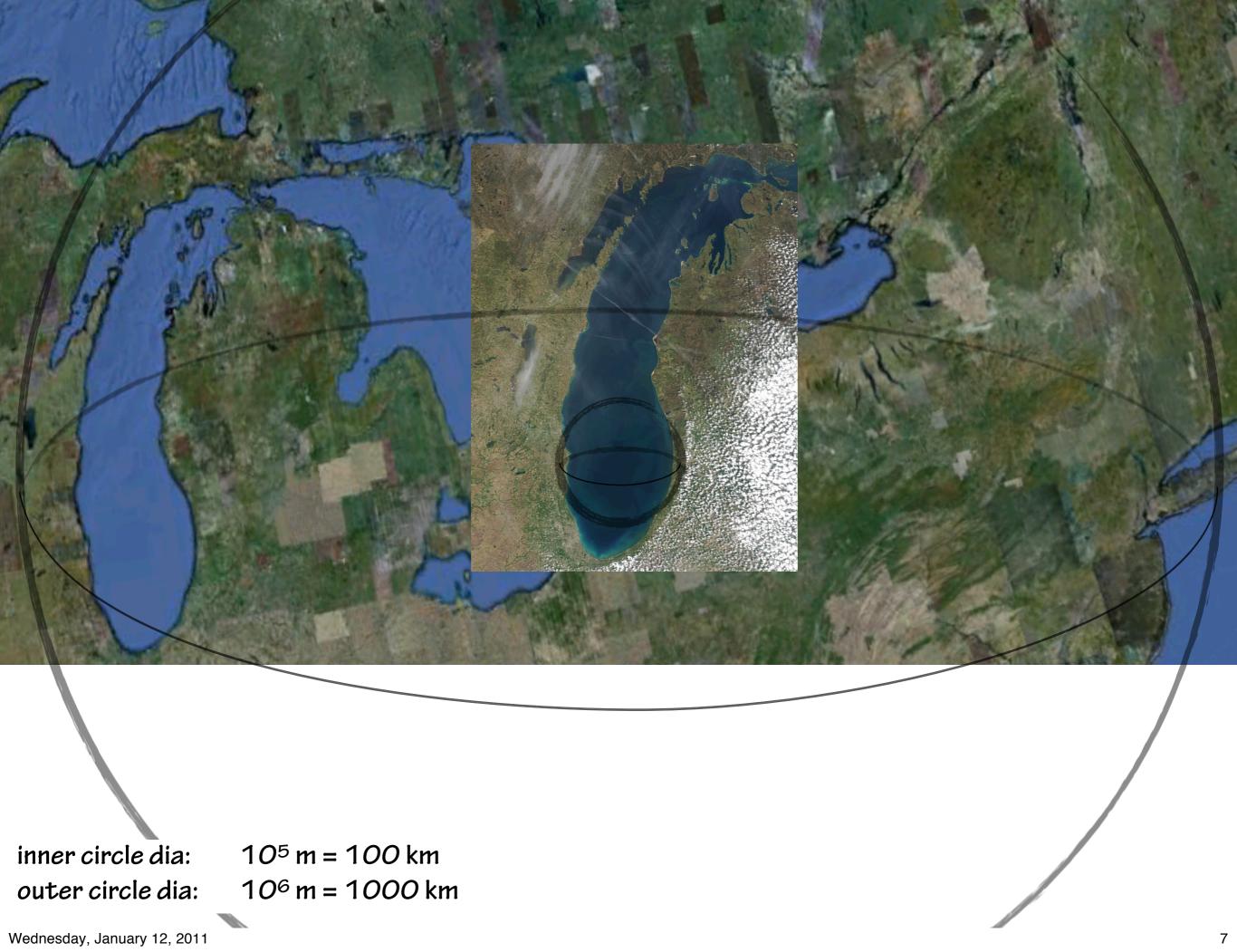
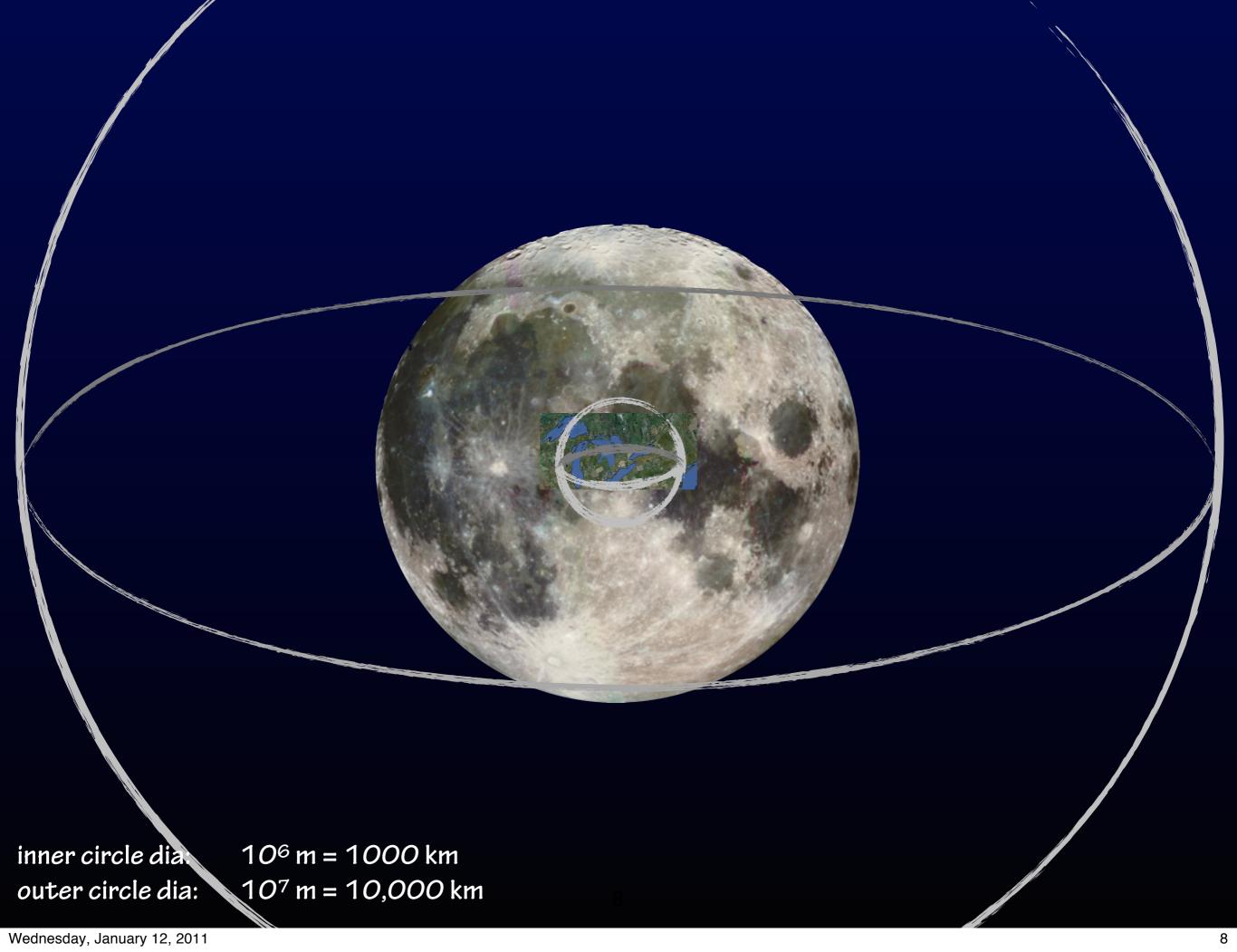
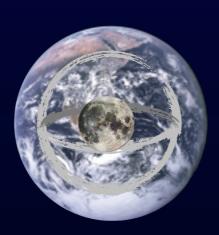


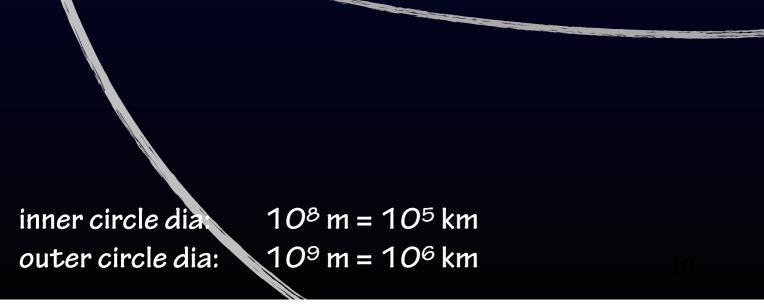
inner circle dia: outer circle dia:	10 <sup>4</sup> m = 10 km 10 <sup>5</sup> m = 100 km	

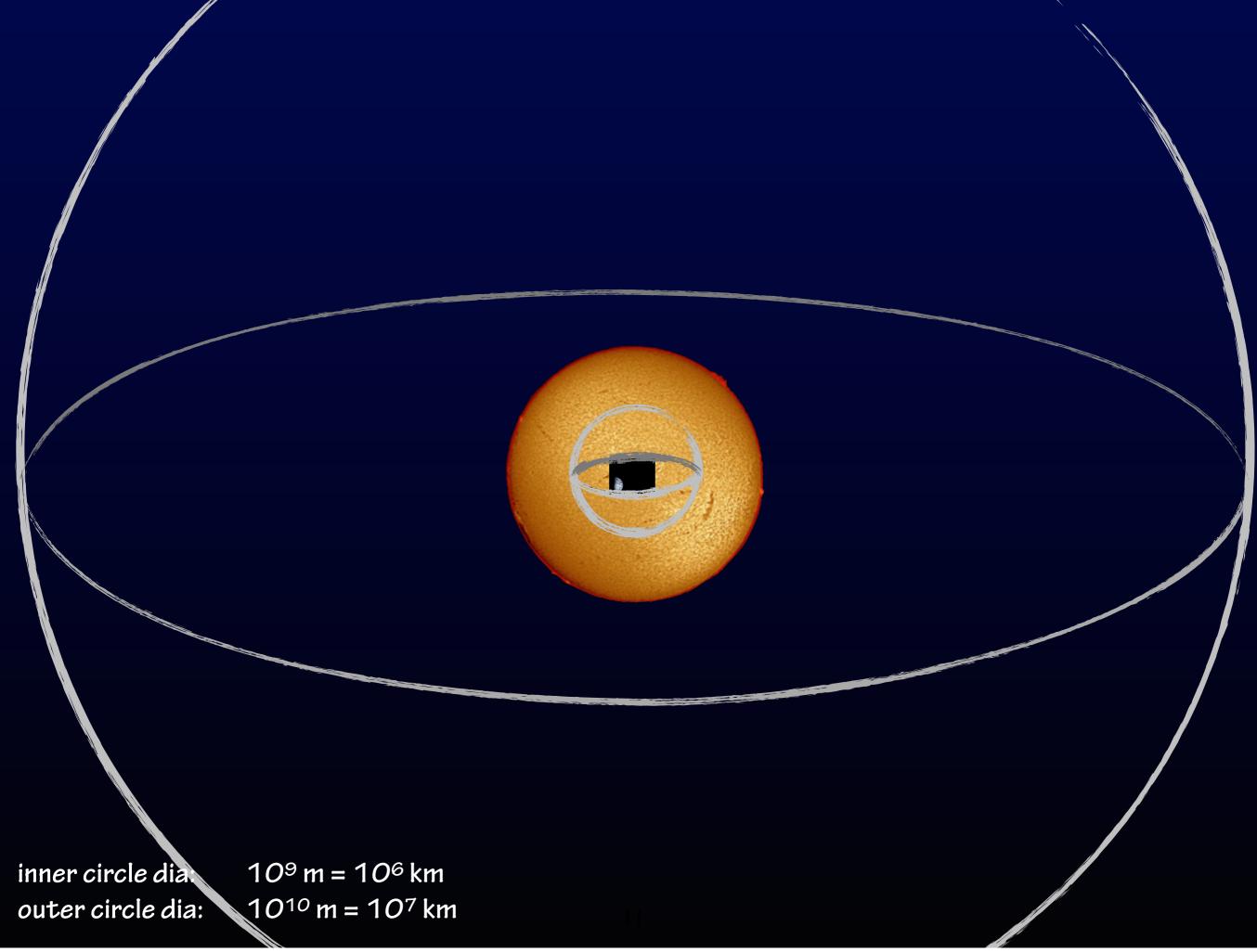


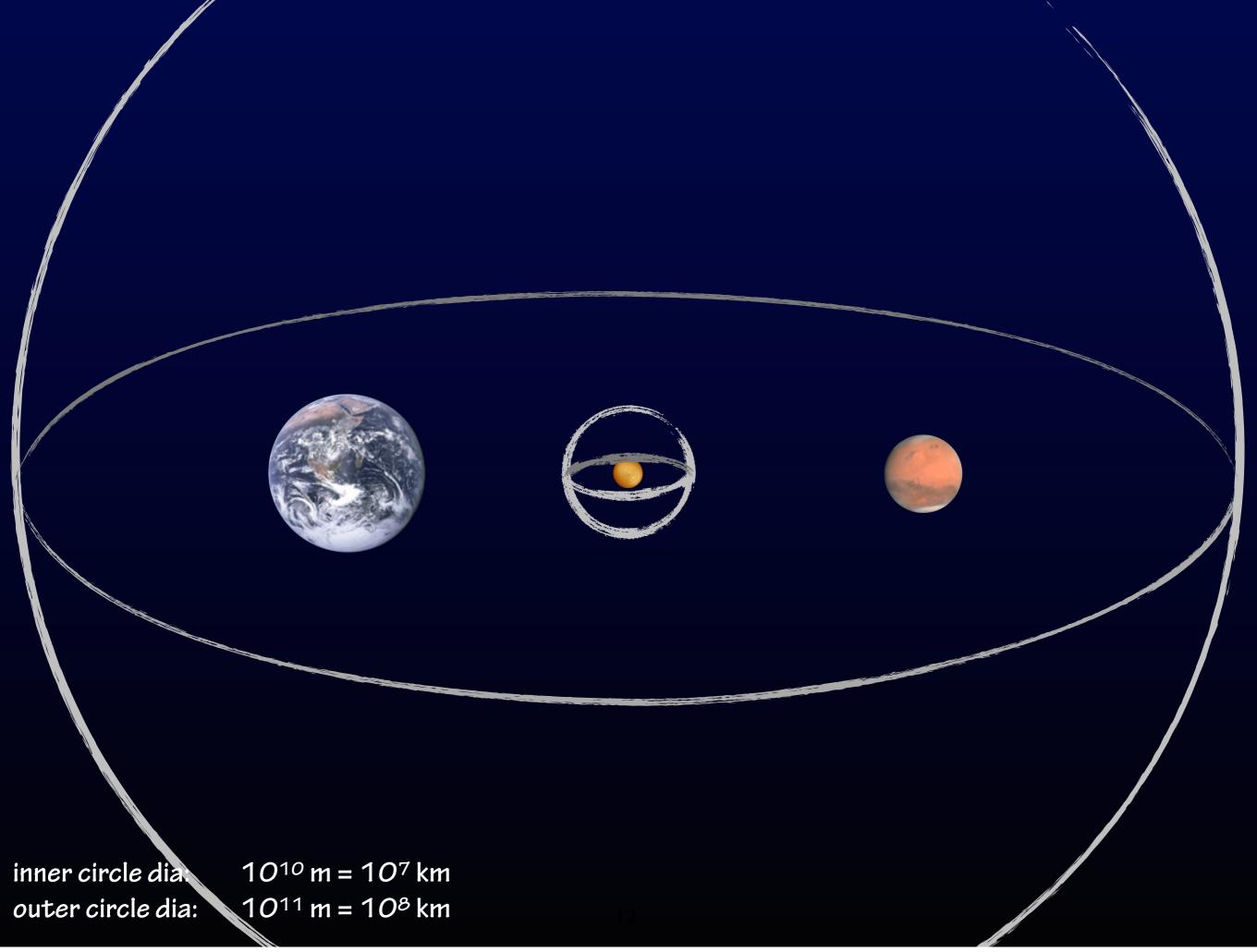




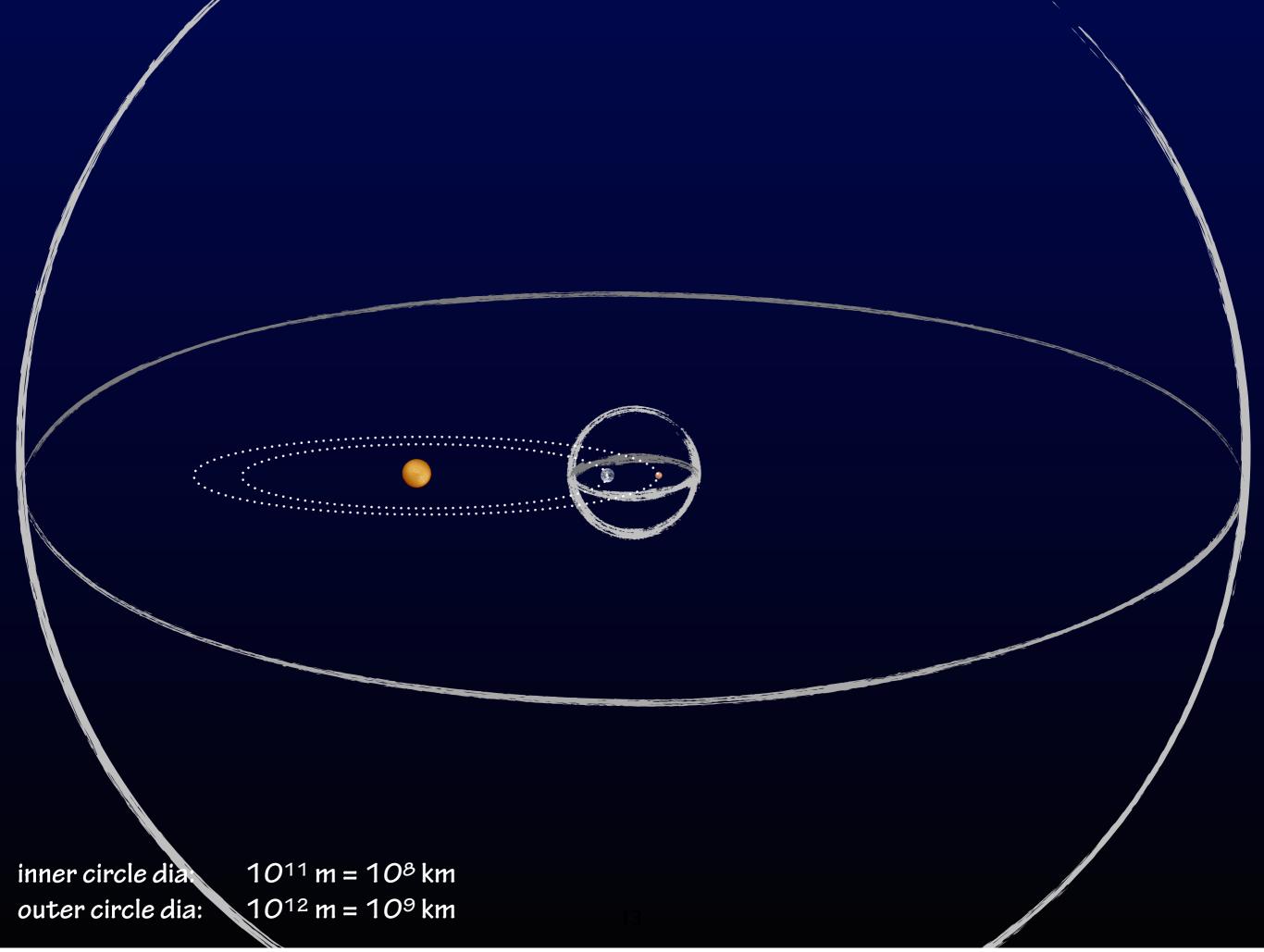
inner circle dia:  $10^7 \text{ m} = 10^4 \text{ km}$ outer circle dia:  $10^8 \text{ m} = 10^5 \text{ km}$ 

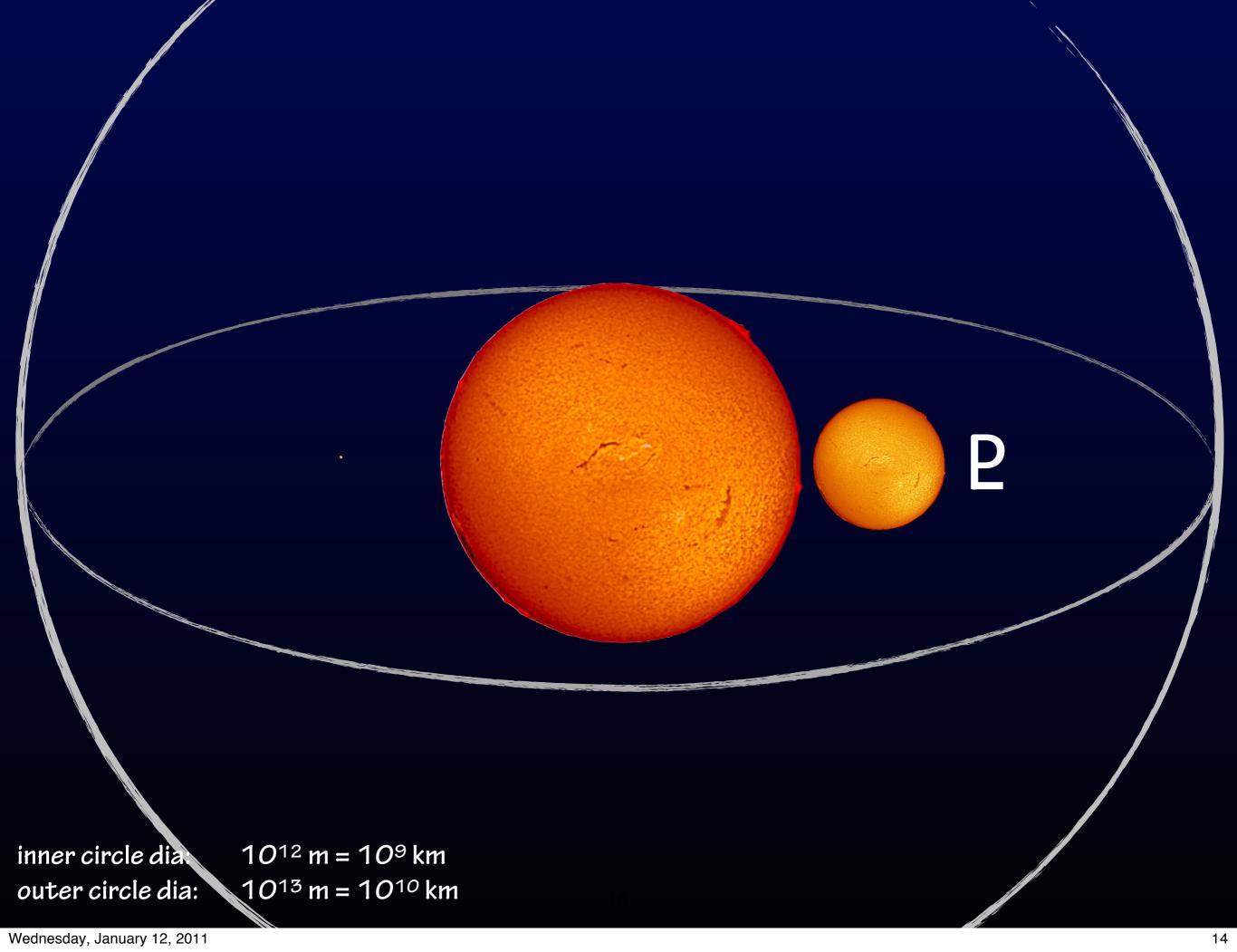


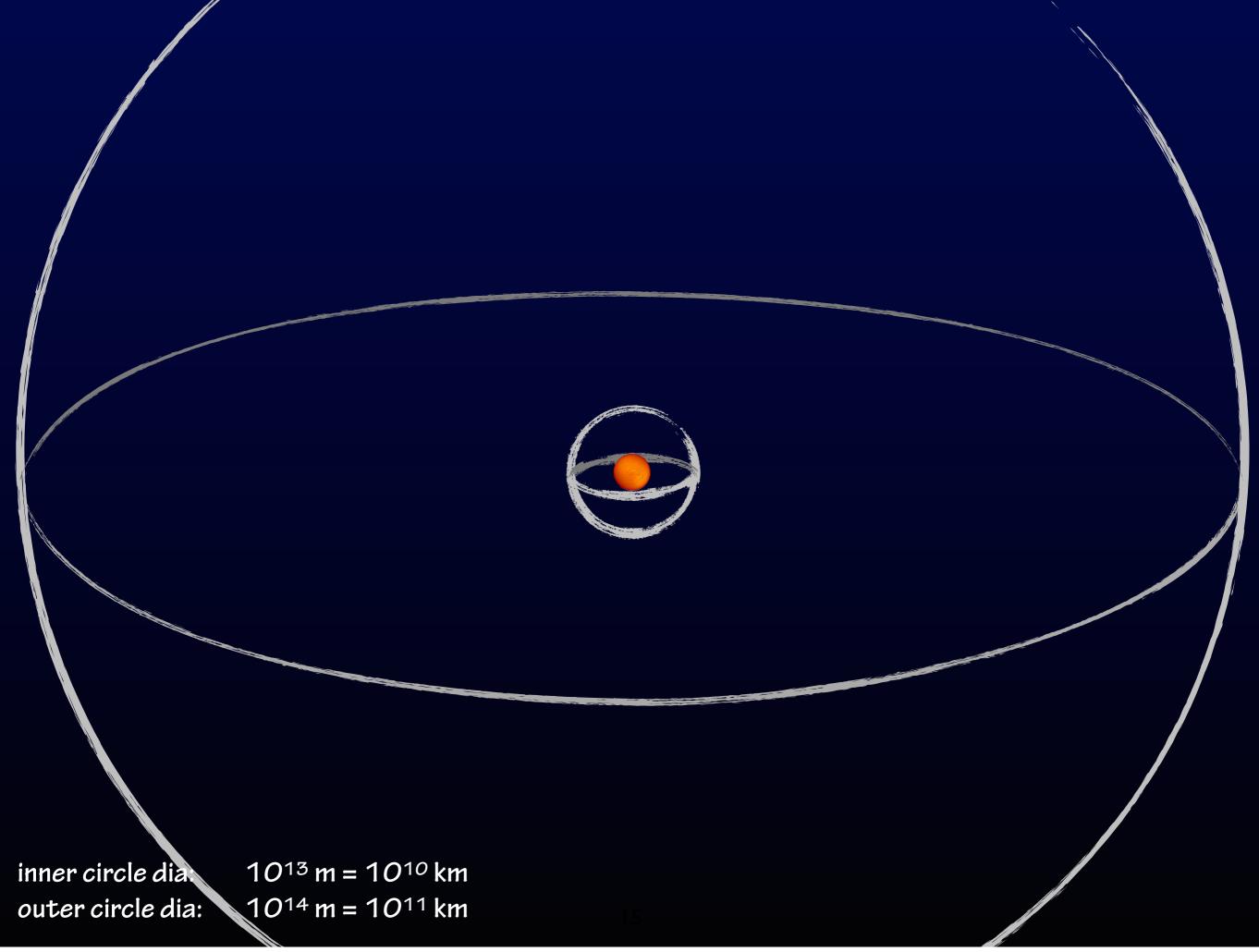


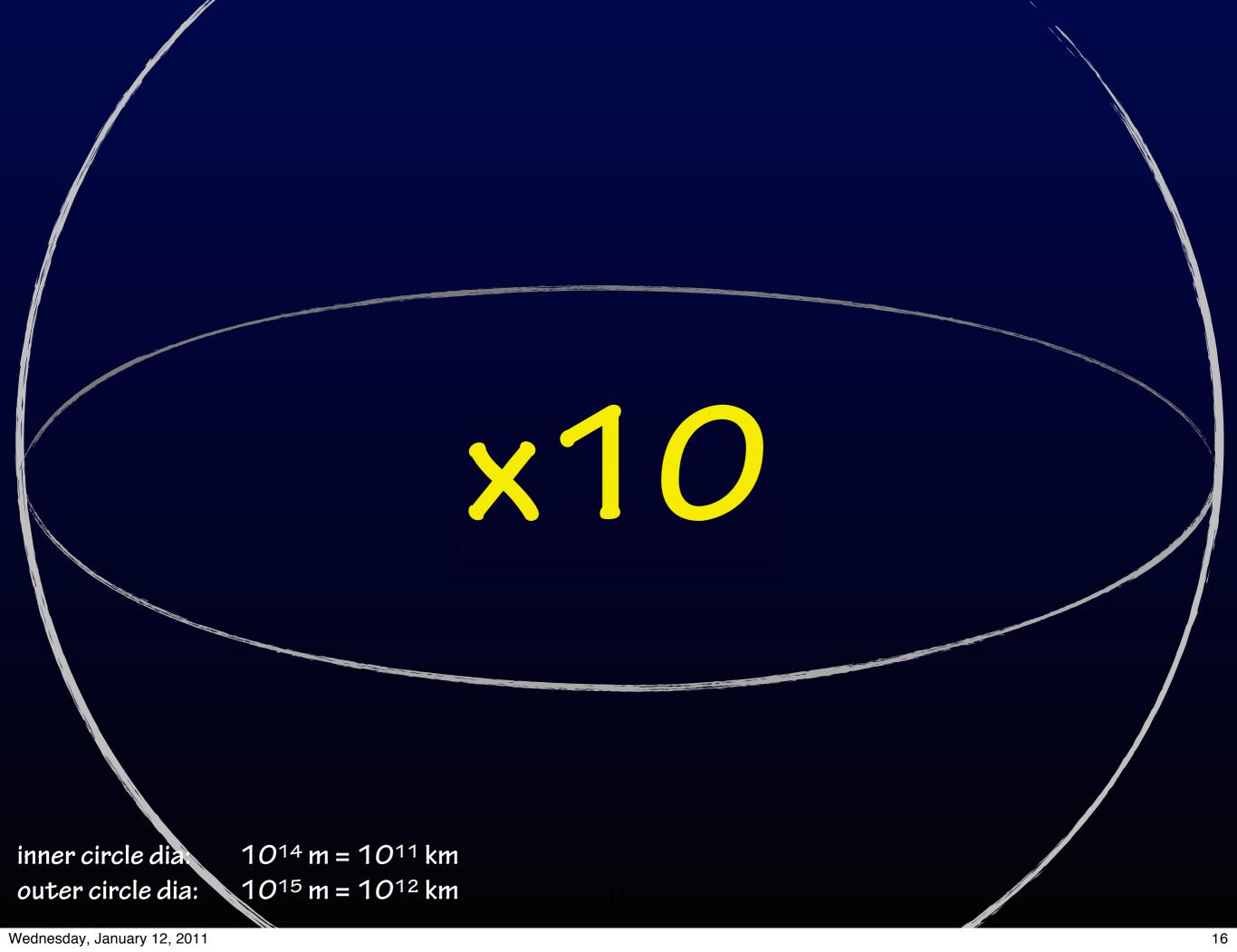


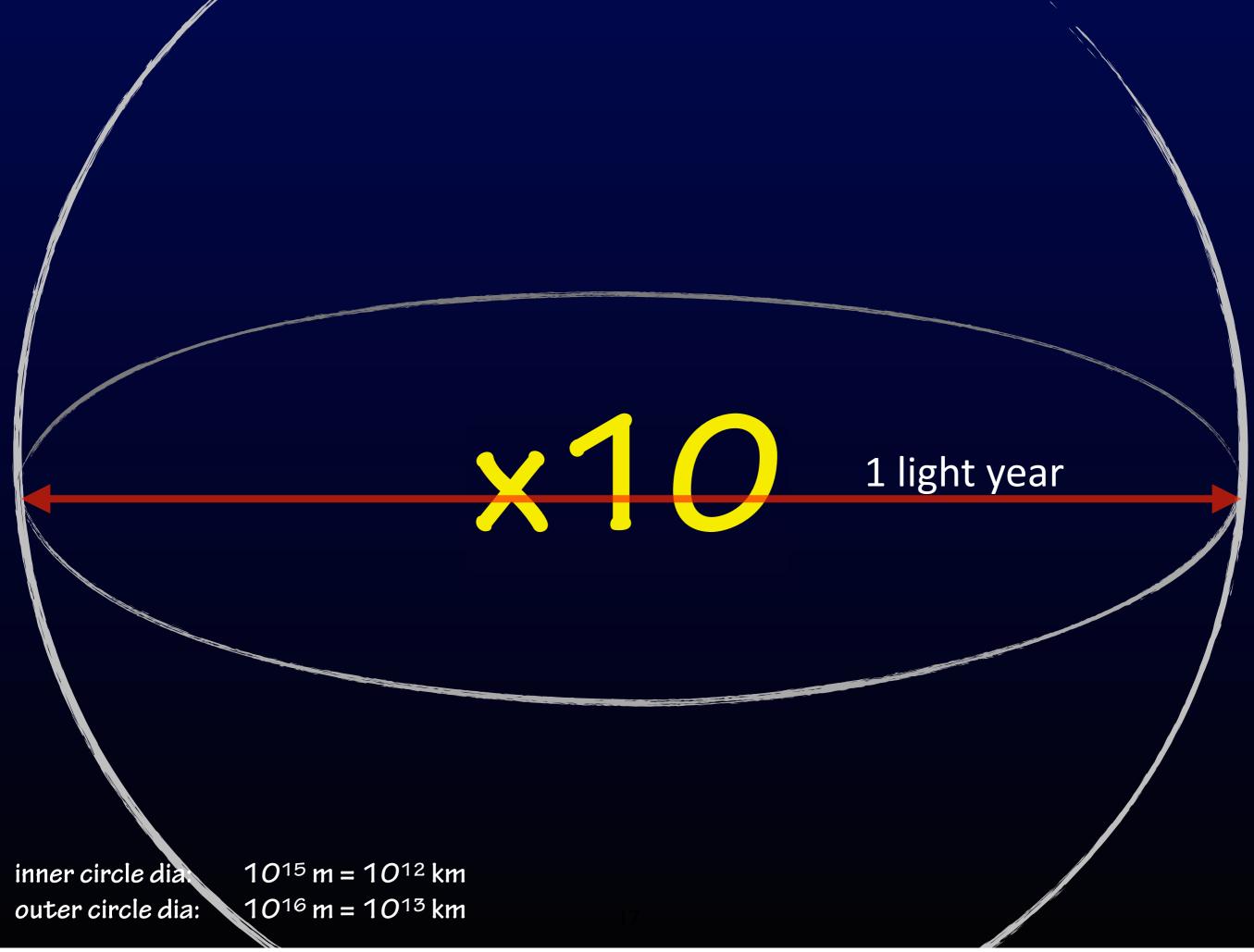
Wednesday, January 12, 2011

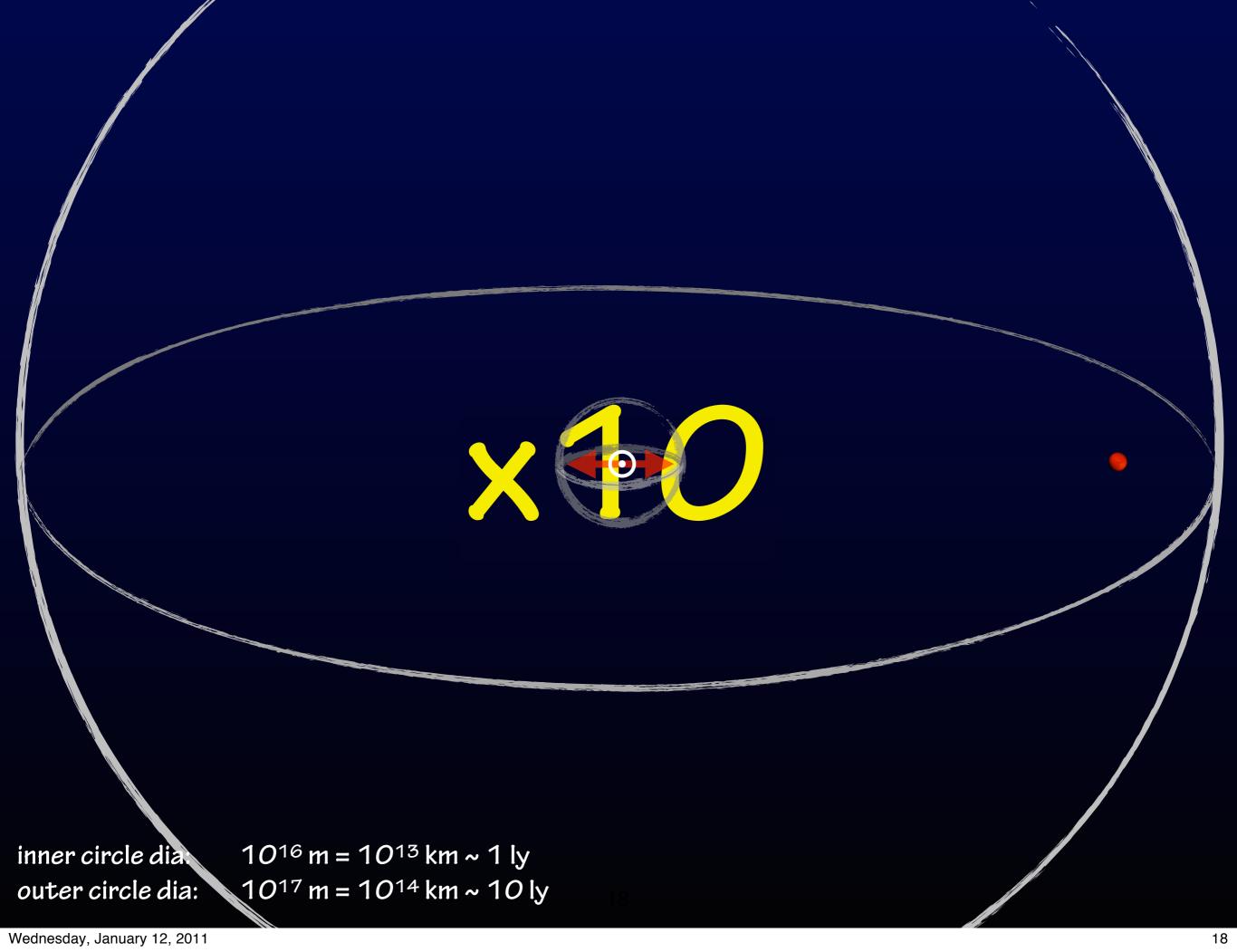


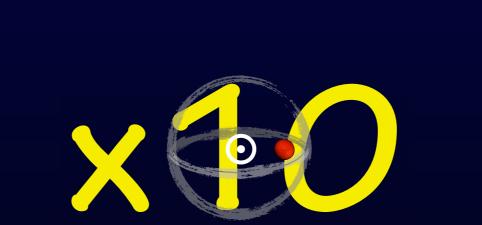






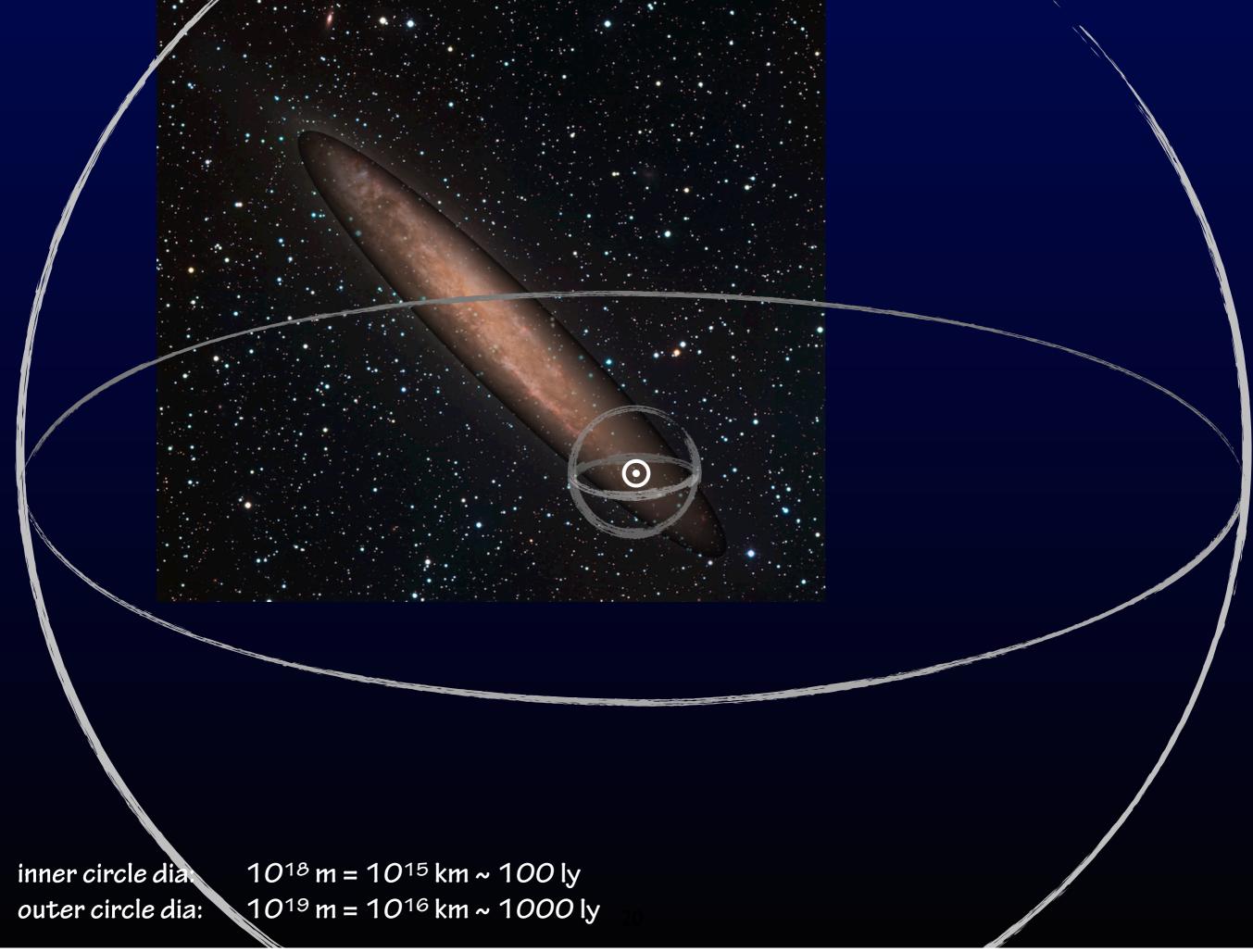


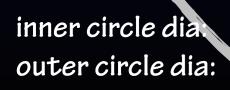




inner circle dia outer circle dia:  $10^{17} \,\mathrm{m} = 10^{14} \,\mathrm{km} \sim 10 \,\mathrm{ly}$ 

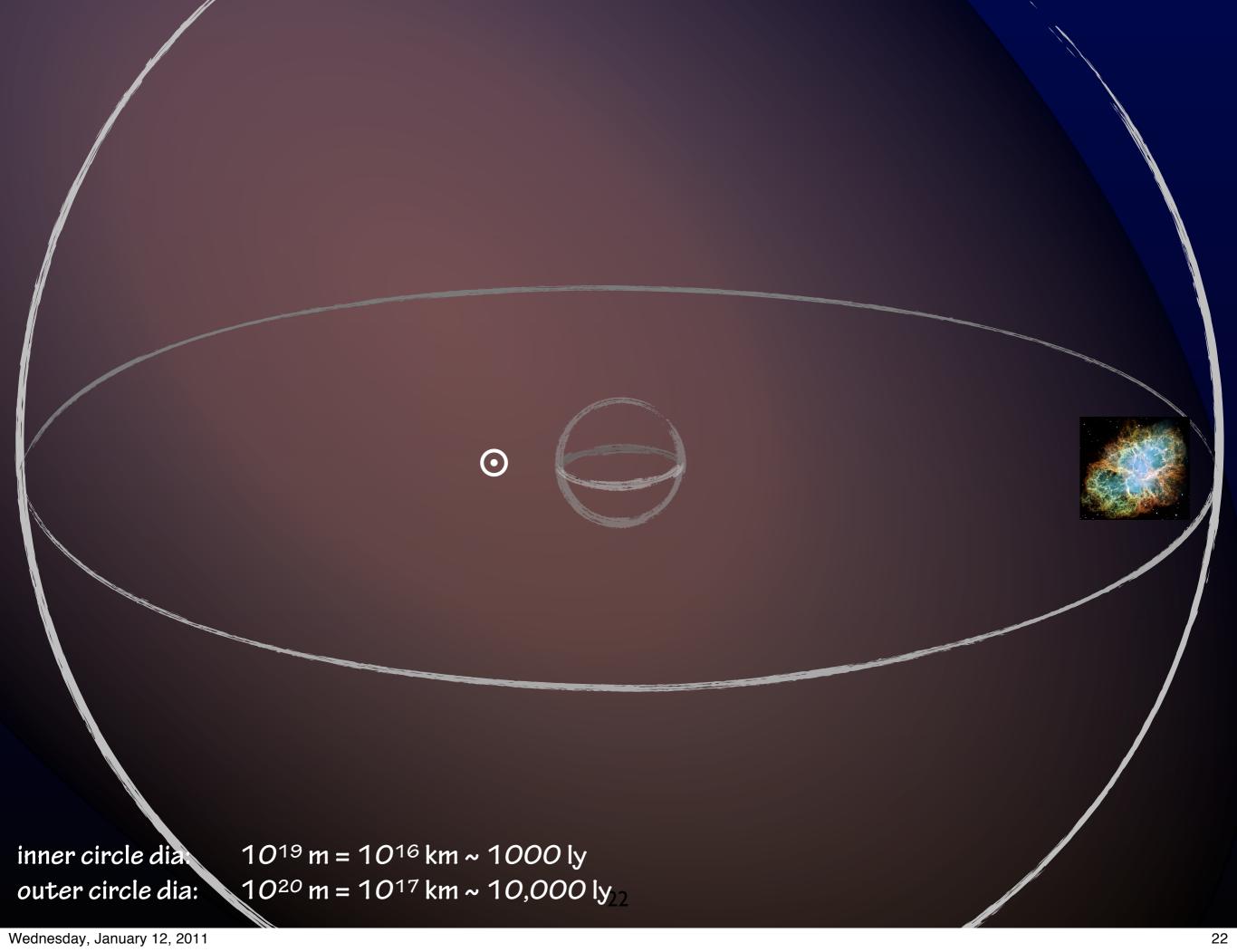
 $10^{18} \text{ m} = 10^{15} \text{ km} \sim 100 \text{ ly}$ 





## $10^{18} \text{ m} = 10^{15} \text{ km} \sim 100 \text{ ly}$ $10^{19} \text{ m} = 10^{16} \text{ km} \sim 1000 \text{ ly}$

 $\bigcirc$ 





inner circle dia. outer circle dia:



inner circle dia outer circle dia:  $10^{21} \text{ m} = 10^{18} \text{ km} \sim 100,000 \text{ ly}$  $10^{22} \text{ m} = 10^{19} \text{ km} \sim 10^{6} \text{ ly}$ 

