

3/21/08

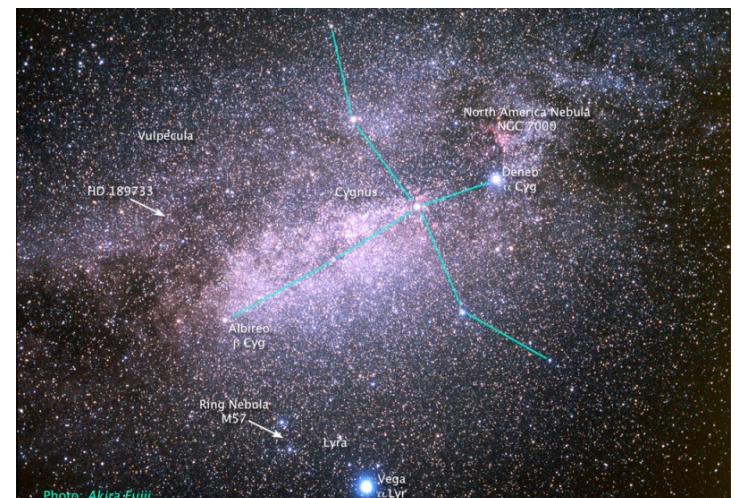
Equinox yesterday, first day of Spring

Easter is the first Sunday after the first full moon after Equinox.

Equinox is also Norouz, the Persian New Year, start of year 1387 on the Persian calendar.

Astronomy in the News - brightest cosmic gamma-ray burst ever, most distant naked eye object by far, half way across the Universe. In direction of constellation Bootes

Pic of the day - HD 189733 in Cygnus, Jupiter mass planet shows water and methane, stuff of life



3 D gravitating space is not a “cone;” that is just an artifact of the 2 D embedding diagram.

Real 3 D space around gravitating objects has the properties:

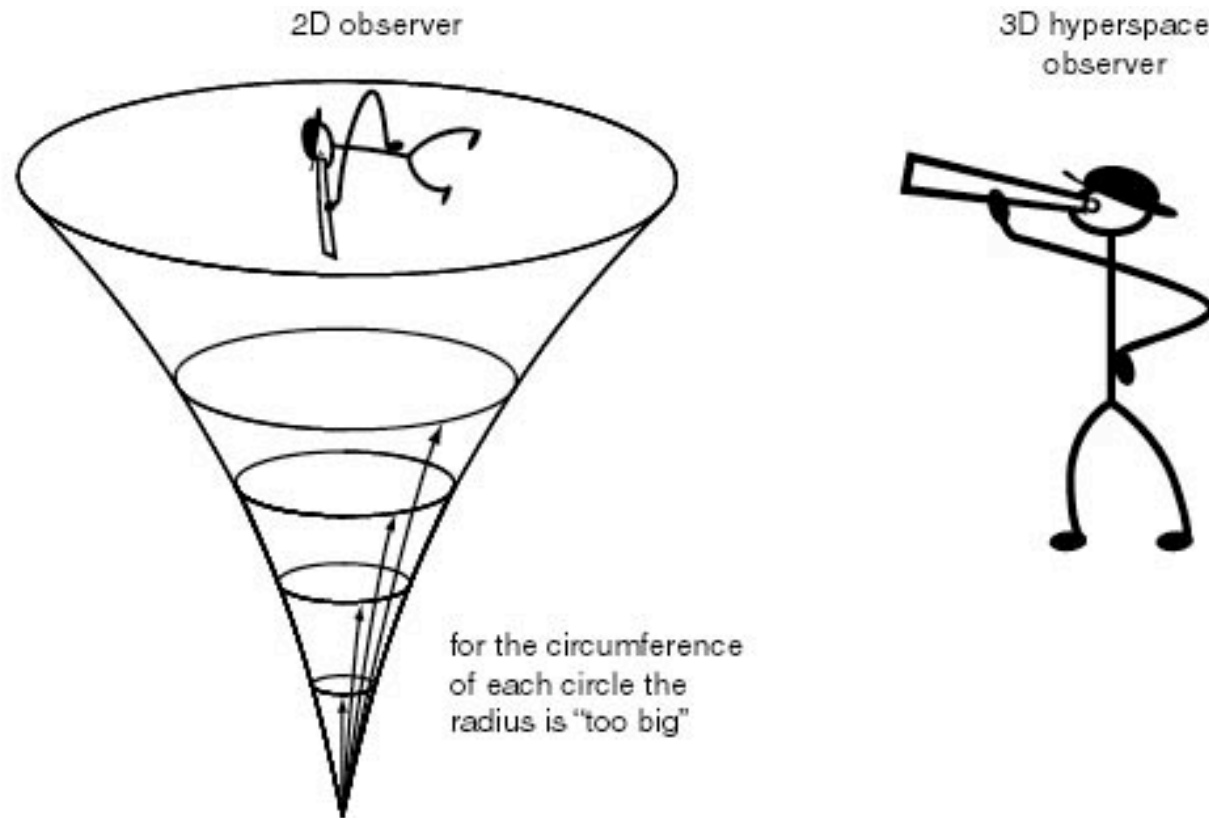
$$C < 2\pi R$$

Δ not equal 180°

// lines cross

light is deflected (this one has been experimentally verified)

Fig
9.6



Curved
3D
space

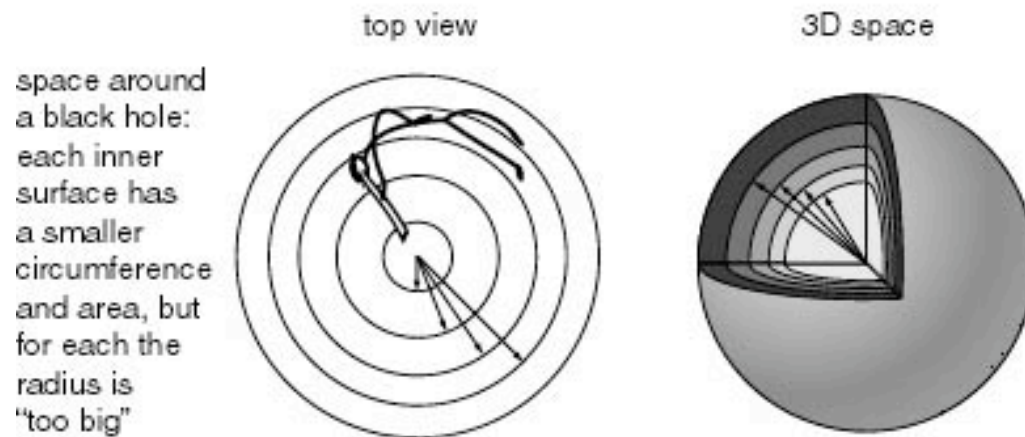
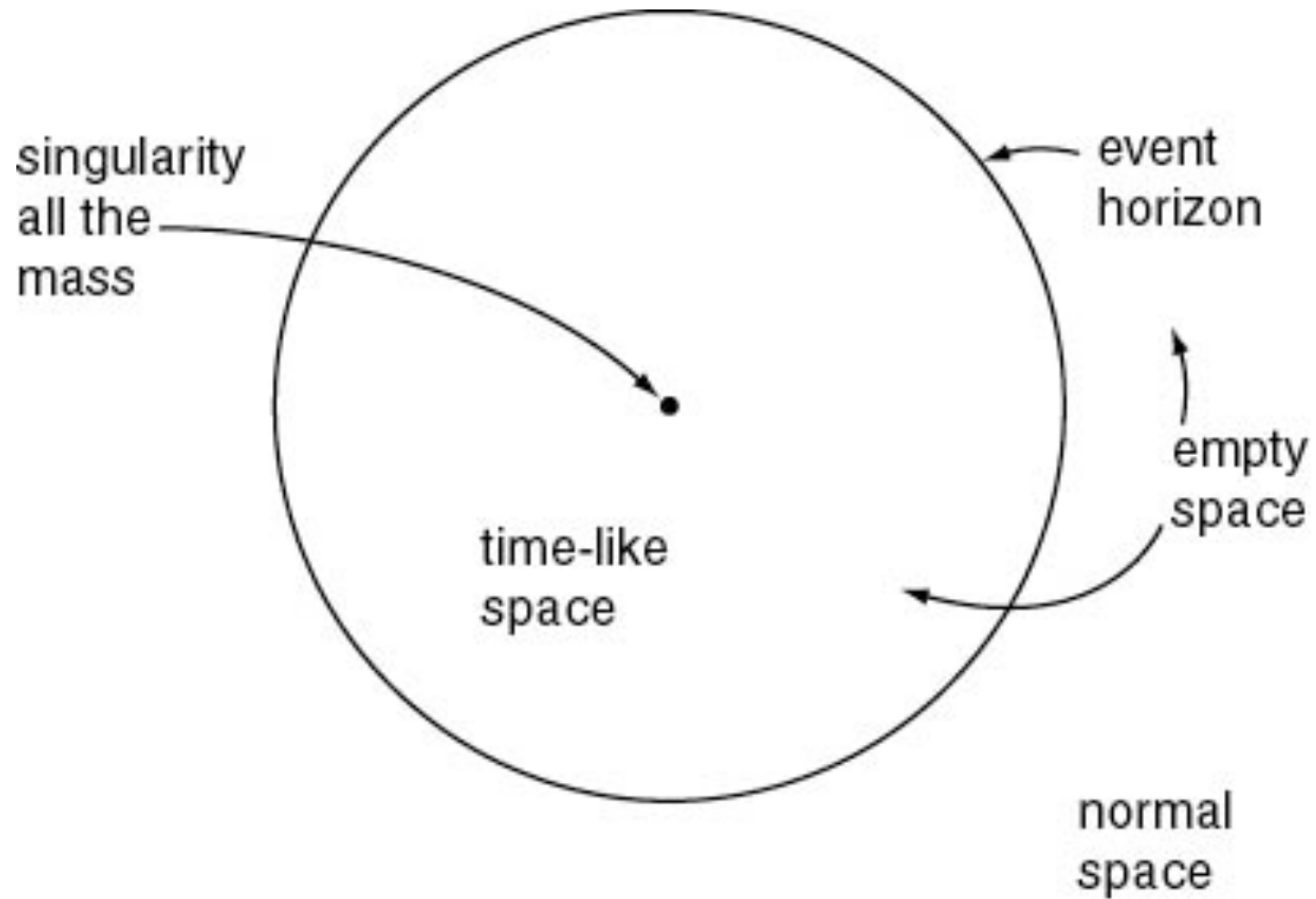
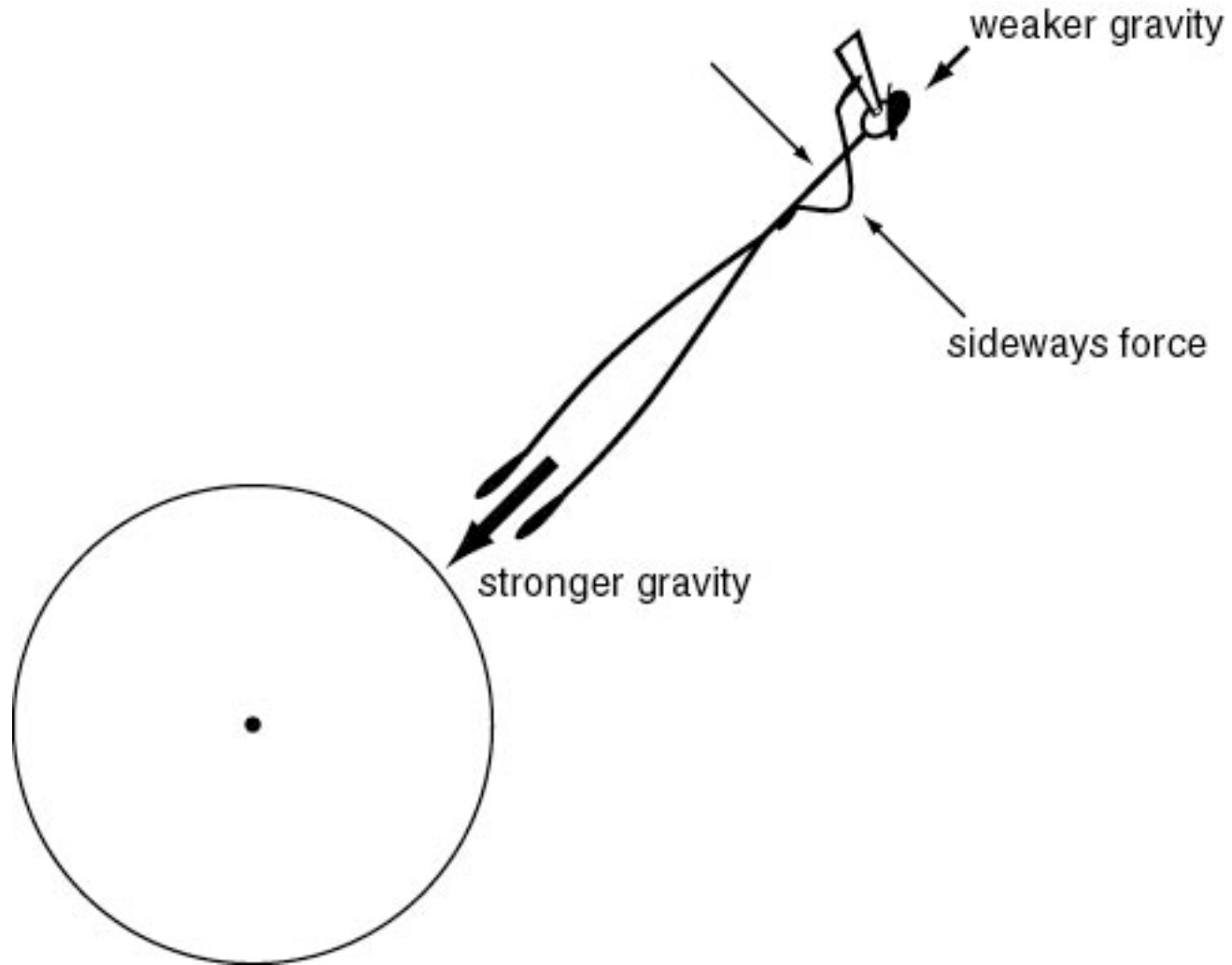


Figure 9.1



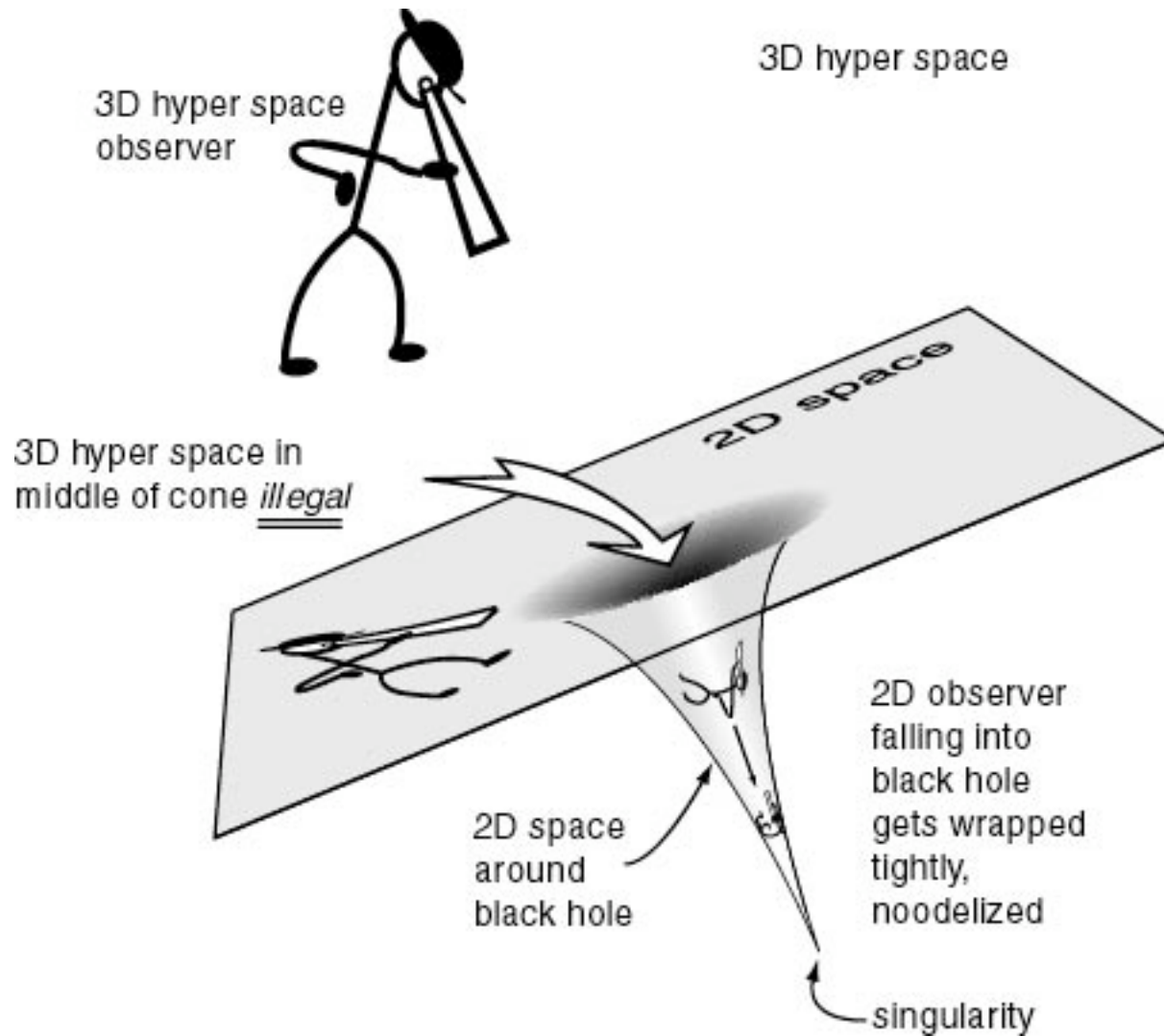
Basic properties of a (non-rotating) black hole

Figure 9.2



Tidal Forces

Figure 9.3



2D embedding diagram of 3D curved space around a black hole