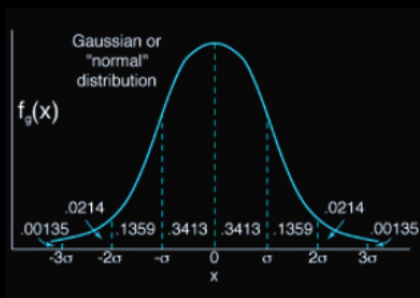
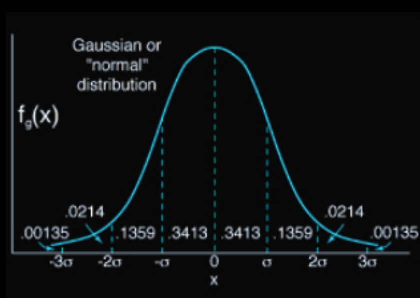
Temporal Elasticity Gravitation and Antimatter
sgm, 2018/DEC/06

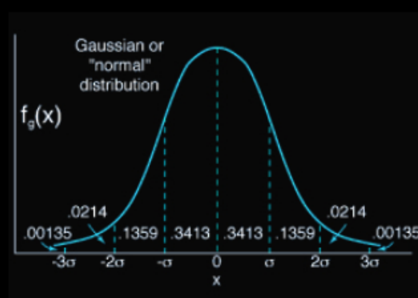
2D depiction of a 3D *time-dilation field* of a neutron star:



peak magnitude is 1.7, $\sigma=2r_s$, r_s=Schwarzschild-radius

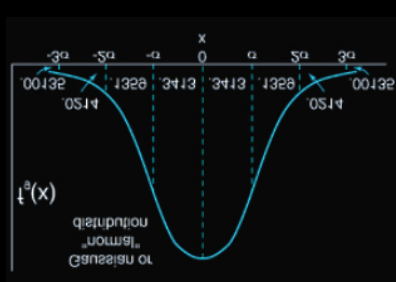
time-dilation view of ‘gravitational’ force:



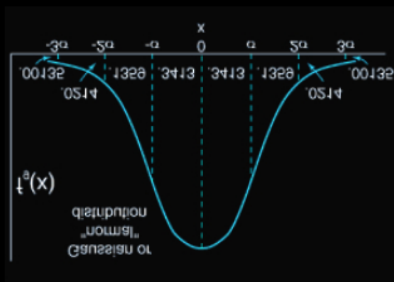


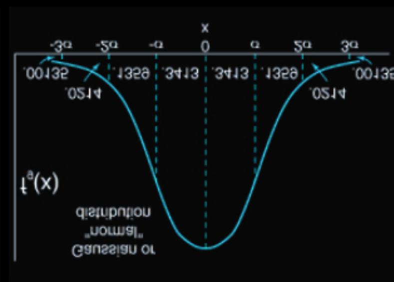
two neutron stars are attracted to each other ‘gravitationally’ because *time is dilated between them*

2D depiction of a 3D time-*compression* field of an *anti-*neutron star:



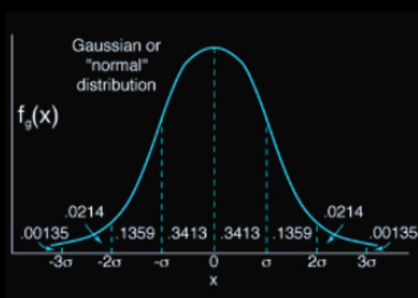
peak magnitude is -1.7, $\sigma=2r_s$, r_s=Schwarzschild-radius time-compression view of ‘gravitational’ force:

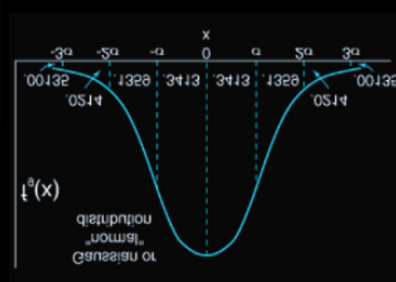




two antineutron stars are *attracted* to each other ‘gravitationally’ because *time is compressed between them*

No ‘gravitational’ interaction between a neutron star and antineutron star because *time is flat between them*:





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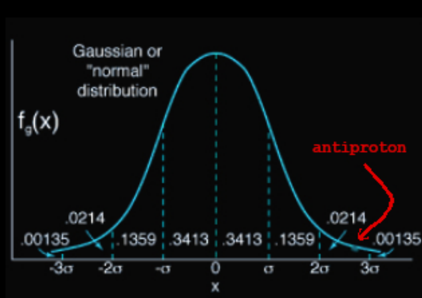
|
flat time

An antiproton near a neutron star:



appears as a ‘dip’ in the time-dilation field of a neutron star; effectively, *gravitational repulsion*

A proton near an antineutron star would experience a similar phenomenon.

Implications:

1. antimatter thermonuclear processes transpire at least $1.7^2=3$ times faster than matter processes; this could be the reason we don’t observe anti-stars presently

2. time essentially stops at the event horizon of matter black holes; time would race to infinity at the event horizon of antimatter black holes which implies IF Hawking radiation is a fact for both types, antimatter black holes should evaporate ‘instantly’ upon formation whether primordial or due to stellar death

3. however, antineutron stars should persist until today regardless of when they formed; there is no evaporation analog for neutron stars as there is for black holes

4. individual antineutron stars would not interact gravitationally one-on-one with matter neutron stars HOWEVER collectively, they may cause repulsive effects on matter such as cosmic filaments, dark flow, and accelerated expansion