

Gravity Shifting Due to Distribution of Momentum in Black Hole and its Relation with Time Flux

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There are many local convection systems of heat and mass in black holes. These large scale coupled systems including planets and molten masses which generate momentum in black hole and consequently generate coupled gravitational and electromagnetic waves. Therefore black hole's gravity is shifting due to distribution of masses/momentum in its convection systems.

Two massive black holes which merged at a distance of 1.3 billion light years far from the Earth, produced different momentum and energy before, during, and after the event in different locations of the black hole. This energy and momentum produced gravitational waves which radiated away and recorded on September 14, 2015 by two detectors of the Laser Interferometry Gravitational Observatories (LIGO) in USA.

On the other hand, the nature of time is wavy-like motion of the matter and nature of space is jerky-like motion of the matter. These two natures of space-time can be matched on wave-particle duality in quantum mechanics. And also magnitude of the time for an atom is momentum of its involved fundamental particles [Gholibeigian, adsabs.harvard.edu/abs/2016APS.APR.D1032G].

$$\vec{R}(mv, \sigma, \tau) = \sum (p_{nucleons} + p_{electrons})$$

In which \vec{R} is time flux, σ & τ are space and time coordinates on the string world sheet and p is momentum. Therefore, gravitational waves which travel from black hole to us including different fluxes of time which accompany propagated gravitational waves of momentum.

As an observable factor, we can look at the 7 milliseconds difference of recorded at the time of arrival of the signals on September 14, 2015 by detector in Livingston before detector in Hanford. This difference of recorded time of signal GW150914 by LIGO cannot be due to warped space-time, because 3002 kilometers distance between two detectors with respect to the 1.3 billion light years (distance of black hole to detectors) is like zero! So, this 7 milliseconds difference between two time's fluxes can be due to gravitational waves propagated by different momentum which produced in different locations of the two merged black holes.

We can see this phenomena in solar system like the Sun, Jupiter and our planet too, the Earth's gravity is shifting due to distribution of the mass/momentum in the Earth's core which resulted by the inner core dislocation and convection systems in the outer core. Because the inner core has a daily rotation around geophysical axis inverse of the Earth's spin due to its eccentricity and generates a huge variable momentum in the core [Gholibeigian, sabs.harvard.edu/abs/2012AGUFMPA23A1960G] – and therefore local gravity – inside the Earth is constantly changing. Results of the Gravity Recovery and Climate Experiment (GRACE) which lunched by NASA and the German Aerospace Center (DLR) in March 2002, approved this phenomena too. In other words generated momentum inside the large scale convection systems can be a source of coupled gravitational and electromagnetic fields in nature which has its own time flux.