

Acceleration, deceleration and finishing of universe expansion

Yukio Tomozawa

University of Michigan, USA

The author will show that the acceleration of the Universe expansion can be explained by coordinate transformation from the author's physical metric to FRW (Friedmann Robertson Walker) metric. The physical metric introduced by the author fits the experimental data, in particular that of time delay experiment of Shapiro *et al.* The author will present a new way of understanding the nature of gravity. It has a nature of gravity that has a repulsive/attractive force, depending on whether one is inside/outside of the extended horizon. The outcome is an accelerated expansion inside the extended horizon and a decelerated expansion outside of the extended horizon. The author will show that the expansion of the Universe will continue to persist to the infinity distance. In conclusion, the reason that dark energy exists lies intrinsically in the true nature of gravity.

Biography

Yukio Tomozawa has obtained his DSc in 1961 from Tokyo University. He worked as an Assistant Researcher at Tokyo University (1956) and at Tokyo University of Education (1957-1959) - Member at the Institute for Advanced Study, Princeton, NJ (1964-1966). He was also worked as an Assistant Professor, Associate Professor, Professor and Emeritus Professor at the University of Michigan, USA. He found that the Schwarzschild metric does not fit the data of time delay experiment in the field of general relativity. He has introduced a physical metric which fits the data. It was constructed with the constraint that the speed of light on the spherical direction is unchanged from that in vacuum. This modification changes the way we understand the nature of gravity drastically. In particular, the nature of compact objects, neutron stars and black holes, is very different from that described by the Schwarzschild metric. It also explains the dark energy, supernova explosion and high energy cosmic ray emission from AGN (Active Galactic Nuclei), massive black holes.

tomozawa@umich.edu

Notes: