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## PULSAR IDENTIFICATION OF BACKGROUND SPECTRA OF LIGO DATA

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**B**y choosing the metric in general relativity as the exact solution to the Einstein equation that is the time delay data, one can determine the gravitational redshift on the surface of neutron stars. The author presents the physical metric that is observed time delay data and using the Kerr metric, the author has shown the effect of a pulsar' rotation on gravitational redshift in the determination of gravitational wave frequency is within 1%. Based on this result, the author has identified potential pulsar candidates with gravitational wave spectra that will be critical in the study of gravitational redshift and the relationship between rotation and gravitational waves of a neutron star.



### Biography

Yukio Tomozawa obtained his DSc in 1961 from Tokyo University. He was an Assistant 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 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 hole.

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