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Author: Mr. Abhay Kaushik Nudurupati
University of Petroleum and Energy Studies, India, nabhaykaushik@gmail.com

Mr. Adwait Sidhana
University of Petroleum and Energy Studies, India, 2000ad30wait@gmail.com
Prof. Sudhir Kumar Chaturvedi
University of Petroleum and Energy Studies, India, sudhir.avionics@gmail.com

RELATIVE STUDY ON DISSIMILARITY OF GRAVITATIONAL WAVE BEHAVIOR AROUND
BLACK HOLE'S EVENT HORIZON

Abstract

“So much Universe and so little time”, where the frontiers to deep space exploration in the vastness halts on a point preliminary to the speed of light. With theories on multiverse by Stephen Hawking ready to be evinced by the James Webb Space Telescope, colossal proportion of our universe still remains a question. An explicit need for faster or smarter space travel is a challenge of the century, supported by hypothesis including Teleportation, Worm Holes, and Quantum Entanglement. Gravity as a universal entity, carries in front the analytical phenomena in dawn proving any of the mentioned. The study in the company of hypothetical and probable simulation perusal, is enthralled on observational analysis of gravitational wave behavior in relation with the event horizon of the black hole counting the fundamental concepts of existing physics over the greatest known curvature of space-time. The analysis with computer aided designs for representative purposes are modelled on Autodesk Fusion 360 with iterative computational analyses performed over software's including COMSOL Multiphysics, MATLAB and Simulink. The study stands as a baseline for observational and theoretical future space explorations providing a major crossover in the field of astronomy and space sciences.