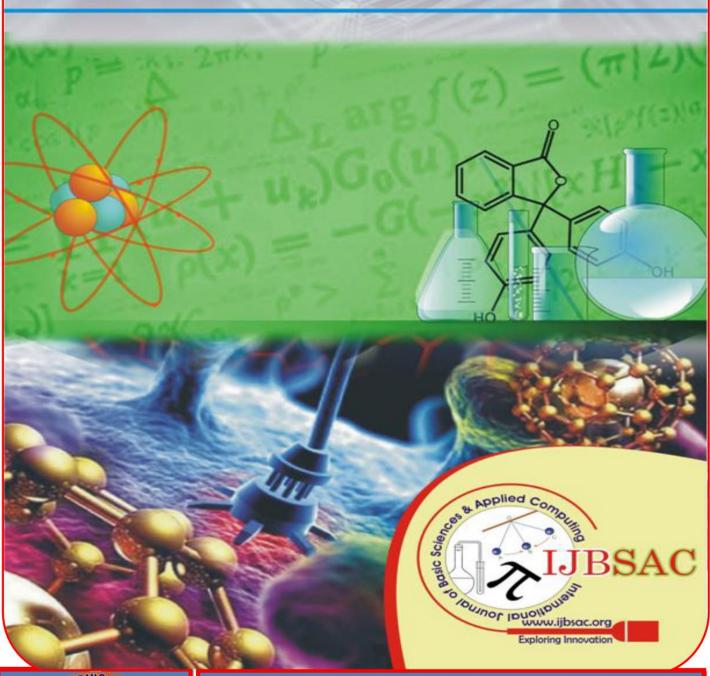
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Paper Title: Physics of Optics and Time

Abstract: A brief proposition on the nature of light waves and how it affects the measurement of observers. Imagine a stationary observer who is at a distance D, away from a stationary source of light that emits a light signal at a constant period t, and let's assume that both parties are provided with a clock. If the source of light emits a light signal that travels away to the observer for a period of time t, both parties will agree that there is no change in the wavelength of the light wave emitted. More also, both parties will agree that their respective clocks records same time t, for the period of the light signal. Now consider a similar instance where the source of light travels some meters during the same time t, as the period of the emitted light wave, the wavelength of the light wave recorded by a device attached to the source of the light will be different from the wavelength recorded by the stationary observer. Also, the clock attached to the moving source of light will disagree with the clock of the stationary observer over the period t, of motion of emitted light wave. The conclusion from the above instance is that: 1. There is No change in the measurement of the clocks of both parties when there is No change in the property of the light wave emitted.2. There is a change in the measurement of the clocks of both parties when there is a change in the property of the light wave emitted. It is clear that the motion of the light source creates a change in the physical property of the light wave. As I proceed in this article, I will show that the simple act of creating a change in the physical properties (wavelength) of the waves, automatically creates a difference in the measurements of observers of different frames. This change in the physical property of the light waves can make physical measurements of different frames to appear relative in nature depending on the magnitude of the disturbance produced in the waves of light.

Keywords: Optics, Law of Reflection, Refraction, Superposition, Diffraction, Dispersion, Polarization

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Paper Title: Rocket Net Force

Abstract: Net force refers to what you get when you consider the total effect of all the forces acting on something. If two equal forces are acting in opposite directions, the net force is zero. A net force acting on an object causes the object to accelerate. The study of rockets is an excellent way for students to learn the basics of forces and the response of an object to external forces. The motion of an object in response to an external force was first accurately described over 300 years ago by Sir Isaac Newton, using his three laws of motion. Engineers still use Newton's laws to design and predict the flight of full scale rockets. Forces are vector quantities having both a magnitude and a direction. When describing the action of forces, one must account for both the magnitude and the direction. In flight, a rocket is subjected to four forces; weight, thrust, and the aerodynamic forces, lift and drag.

Keywords: Rocket Net Force, Newton's Laws of Inertia, Aeronautics force, Drag, Lift, Weight, Thrust, Rocket Design.

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3.	Paper Title:	Practical Implementation of Newton's Method Tested on Quadratic Functions

11-18

Abstract: In this work we give a detailed look to the Practical implementation of Newton's method tested on quadratic functions. Section (1) speak about the theory of optimization problems, introduce definitions and theorems of linear programming problems , definitions and theorems of quadratic programming problems . Section (2) introduce some methods that has a relationship with our method . In section(3) we look at a method for approximating solutions to equations, solving unconstrained optimization problems. The general theory of the problem is described. Section(4) gives practical implementation of Newton's method tested on quadratic functions to test the theoretical results shown in the work. Section (1)

Keywords: linear programming problems, Practical implementation of Newton's, quadratic functions.

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