

Hyperbolic Octonionic Proca-Maxwell Equations

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In this study, after introducing the hyperbolic octonionic (counteroctonion) algebra, which is also expressed in the sub-algebra of sedenions, and differential operator, Proca-Maxwell equations and relevant field equations are derived in compact, simpler and elegant forms using hyperbolic octonions. This formalism demonstrates that Proca-Maxwell equations can be expressed in a single equation.

Key words: Hyperbolic Octonion; Proca Field Equation; Proca-Maxwell Equations.

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