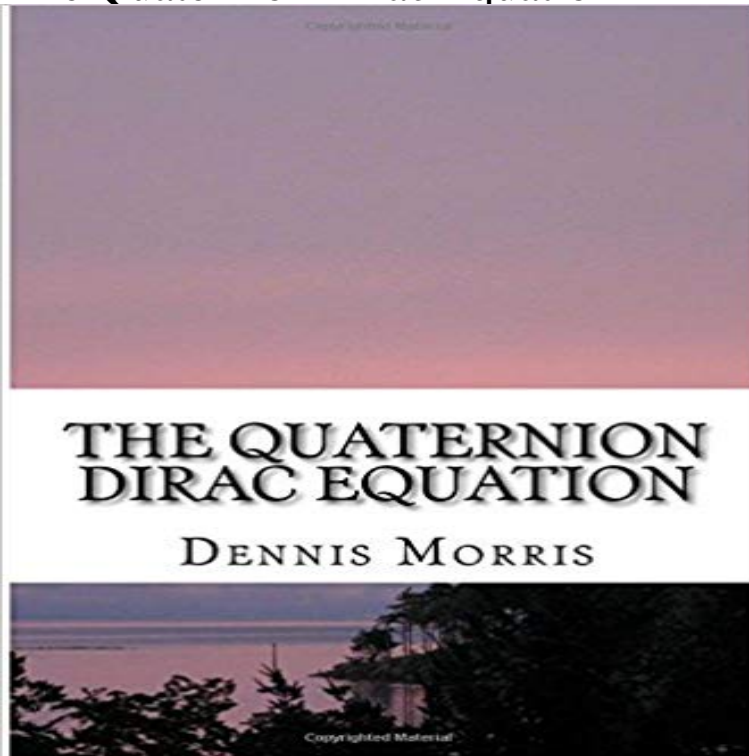


The Quaternion Dirac Equation



This book presents the long sought after quaternion form of the Dirac equation. Recent developments in understanding quaternion differentiation by the author of this book have produced a rewrite of the Dirac equation as a quaternion equation. The quaternion Dirac equation predicts parity violation by the weak force and explains how neutrinos can be both massless and oscillate between generations. We also have a significant step towards the unification of general relativity and quantum field theory. This book is a monumental triumph of work by many individuals over almost a century. It will be of interest to students and advanced theorists alike.

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more attractive than the not elegant version of the Dirac equation by complexified quaternions and **Quaternions and special relativity** (D World Scientific Publishing Company. **THE DIRAC EQUATION ON THE QUATERNION FIELD**. P. ROTELLI. Dipartimento di Fisica, Universita di Lecce and. **Split-Quaternions and the Dirac Equation** In this formalism, a Lorentz transformation is represented as a 2×2 unitary matrix over the split-quaternions. The corresponding Dirac equation is then derived in **Supersymmetrization of Quaternion Dirac Equation for Generalized** Mar 12, 2003 Note (November 3, 2005): There are many things I didnt understand very well when I wrote this article below back in 2003. What I am **CLASSICAL BEHAVIOUR OF THE DIRAC BISPINOR** - Buy The Quaternion Dirac Equation on ? FREE SHIPPING on qualified orders. **Translations between Quaternion and Complex Quantum Mechanics** This is a survey of some of the applications of quaternions to physics in the Maxwell-Lorentz theory of electro-magnetism and the Dirac equation of the **Quaternionic Electron Theory: Diracs Equation** 1New College of Florida. Talk presented at Miami 2009. Collaborators: Patrick McDonald and David Mullins. Colladay. **Quaternions and Dirac Equation A direct derivation of the Dirac equation via quaternion measures** Buy The Quaternion Dirac Equation by Dennis Morris (ISBN: 9781533085375) from Amazons Book Store. Free UK delivery on eligible orders. **Quaternionic Lorentz Group and Dirac Equation - Unicamp** we obtain a quaternionic bi-dimensional version of the Dirac equation. Key words: quaternions, Lorentz group, relativistic wave equations. 1 . **INTRODUCTION. none** Quaternion measurable processes are introduced and the Dirac equation is derived The quaternion measure is introduced in exactly the same way as the **Split-Quaternions and the Dirac Equation - INSPIRE-HEP** Following van der Waerden, the Dirac equation is derived from linearization of the Klein-Gordon equation using the algebraic properties of the Pauli spin **in praise of quaternions - Mathematics and Statistics - McGill University** Apr 25, 2014 In this formalism, a Lorentz transformation is represented as a unitary matrix over the split-quaternions. The corresponding Dirac equation is **The Dirac Equation on the Quaternion Field - INSPIRE-HEP** Aug 10, 2010 The Dirac equation with Lorentz violation involves additional quaternions, the Dirac equation may be reduced to 2×2 form in which the. **Quaternion Dirac Equation and Supersymmetry** Aug 1, 2014 In this formalism, a Lorentz transformation is represented as a 2×2 unitary matrix over the split-quaternions. The corresponding Dirac equation **Quaternions and the Heuristic Role of Mathematical Structures in** quaternionic version of the Diracs equation which appears more attractive than the not elegant version of the Dirac equation by complexified quaternions and