Maxwell equations in Q-space VICTOR CHRISTIANTO, Malang Institute of Agriculture, FLORENTIN SMARANDACHE, University of New Mexico — Quaternion space and its respective Quaternion Relativity (it also may be called as Rotational Relativity) is a new theory capable to describe relativistic motion in a straightforward way. Nonetheless there are subsequent theoretical developments which remains an open question, for instance to derive Maxwell equations in Q-space. Therefore, the purpose of the present paper is to derive a consistent description of Maxwell equations in Q- space. Considering a simplified method similar to the Feynman's derivation of Maxwell equations from Lorentz force. Presenting another derivation method using Dirac decomposition, introduced by Gersten (1999). In accordance with Gersten, the Maxwell equations yield wavefunctions which can be used as guideline for interpretation of quantum mechanics. The one-to-one correspondence between classical and quantum wave interpretation asserted here actually can be expected not only in the context of Feynman's derivation of Maxwell equations from Lorentz force, but also from known exact correspondence between commutation relation and Poisson bracket.

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Date submitted: 19 Sep 2017   Electronic form version 1.4