

الآية

بسم الله الرحمن الرحيم

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صدق الله العظيم

سورة البقرة، الآية (32)

Dedication

I dedicate this work to

My family

Friends

Colleagues

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Undertaking this PhD has been a truly life-changing experience for me and it would not have been possible to do without the support of Allah Subhanho W Talla and my Parents invocation and the guidance that I received from my supervisor.

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Abstract

Using generalized special relativistic energy –momentum relation a useful linear equation was obtained .the coefficients and matrixes resembles that of Dirac relativistic quantum equation .Anew quantum linear relativistic equation sensitive to the potential and the effects of fields was also obtained. This equation reduces to that of Dirac in the absence of fields. The perturbed Hamiltonian consist of free energy term beside linear potential term which resembles that of ordinary perturbation theories. The travelling wave solution gives anew potential dependent energy relation, which reduces to that of Dirac in the absences of field. Moreover this expression for energy can be a pure imaginary for strong potential and energetic particle, which indicates efficient energy absorption by the medium as proposed by electromagnetic theory.

The generalized special relativity, which accounts for the effect of fields through the potential, is also used to derive a new Dirac relativistic quantum equation. This new quantum equation consists of a potential term which emerged naturally from the relativistic energy expression. The solution of this equation predicts the propagation of travelling wave inside fields without attenuation. Thus it can describe the electromagnetic wave propagation inside fields. It also predicts the existence of bio-photons as stationary waves that spreads themselves, instantaneously through the surrounding media. It also shows that particles behave as harmonic oscillator inside atoms with rest mass energy equal to the zero point energy. These results agree with observations.

المستخلص

أُستخدمت معادلة الطاقة وكمية التحرك في النسبية الخاصة المعممة ، تم التحصل على معادلة خطية ذات معاملات متوافقة مع معاملات ديراك النسبية .تم الحصول أيضاً على معادلة كمية نسبية خطية وتتأثر بتغير المجال والجهد. هذه المعادلة تؤول إلى معادلة ديراك في حالة عدم وجود مجال حيث أن معادلة الاضطراب الهملتوني تتكون من جزء يمثل الطاقة الحرة وجزء الجهد الخطي وهو يشبه نظرية الاضطراب العادي. وقد أعطى حل معادلة الموجة المتحركة علاقة جديدة لطاقة تعتمد على الجهد التي أحييت الي ديراك في حالة عدم وجود مجال.واستخدم أيضاً حل معادلة الموجة في حالة وجود جسيم طاقته عالية وجهده قوي لتصبح الطاقة تخيلية مما يدل على إمتصاص عالي للطاقة بواسطة الوسط كما تفترض النظرية الكهرومغناطيسية.

أُستخدمت نظرية النسبية الخاصة المعممة التي تأخذ في الإعتبار تأثير المجالات عبر الجهد لإستنباط معادلة ديراك النسبية الكمية بصورة جديده ، هذه المعادلة الجديده تحوي حد للجهد يستخرج مباشرةً بصورة طبيعية من صيغة الطاقة النسبية . ويتنبأ الحل لهذه المعادلة إنتشار موجة متحركة داخل المجالات وهي تتنبا أيضاً بوجود البايوفوتونات كموجات مستقره تنتشر لحظياً في الوسط المحيط . وهي تبين أيضاً أن الجسيمات تتصرف كمتذبذبات توافقية داخل الذرات بطاقة صفرية تساوي طاقة الكتلة السكونيه هذه النتائج تتفق مع المشاهدات .

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