International Journal of Theoretical and Applied Physics (IJTAP),
ISSN: 2250-0634, Vol.3, No. I (June 2013), pp. 15-24

SWAP OPERATORS AND ELECTRIC CHARGES OF FERMIONS

CHRISTIAN RAKOTONIRINA[1] AND ADOLPHE A. RATIARISON[2]
[1]Département du Génie Civil, Institut Supérieur de Technologie d'Antananarivo,
IST-T, BP 8122, Madagascar.
[1]Département de Physique, Laboratoire de Rhéologie des Suspensions,
LRS, Université, d'Antananarivo, Madagascar.
[2] Département de Physique, Laboratoire de Rhéologie des Suspensions,
LRS, Université, d'Antananarivo, Madagascar.

Abstract

Electric Charges operator (ECO) in phase space formulation, proposed by Zenczykowski, is expressed in terms of a swap operator, in some expressions for possible physical interpretations. An expression of an ECO in terms of a swap operator makes sense to the eigenvalues of the swap operator. An ECO including all the fermions of the standard model (SM) is constructed.

Keywords: Tensor commutation matrix, leptons, quarks

© http: //www.ascent-journals.com