

1048-35-294

Zora Thomova* (thomovz@sunyit.edu), Department of Mathematics, SUNY Institute of Technology, P.O. Box 3050, Utica, NY 13504-3050. *Separation of Variables and Integrability in 4-dimensional Space - An Example.*

We will present a general form of a scalar and vector potentials allowing a separation of variables of four dimensional Schrodinger equation in a specific nonorthogonal coordinate system. The coordinate system we will use is the one with the maximal number of ignorable variables allowing a separation of variables in free Schrodinger equation constructed from maximal Abelian subgroups of the Euclidean group $E(4)$. (Received February 09, 2009)