

# Abstract

**Hani K Kaldass**

## **Analysis of resonance production using relativistic Gamow vectors**

The calculation of an amplitude involving resonance production is presented. This calculation employs for the resonance state a relativistic Gamow vector. It is used for investigating the question of compatibility of the relativistic Gamow vectors kinematics, defined by real  $\beta$ -velocities and complex mass, with the stable particle kinematics in other words, the integration of the Gamow vectors with the conventional Dirac bra-ket formalism. The calculation demonstrates a consistent framework comprising stable Gamow vectors.