

VII Leopoldo García-Colín Mexican Meeting on Mathematical and Experimental Physics



Contribution ID: 17

Type: **not specified**

ANTONIO GARCÍA: Relativistic Runge-Lenz Vector

Thursday, 20 February 2020 16:00 (30 minutes)

We consider the construction of a $S_0(4)$ scalar field theory non minimally coupled to a Coulomb potential. Using the symmetry we calculate the hydrogen atom spectrum. We find that the symmetry have among its generators a constant of motion that we can identify with a Relativistic Runge-Lenz vector.

Session Classification: SHORT TALKS

Track Classification: SYMPOSIUM ON BLACK HOLES AND GRAVITATIONAL WAVES