

## **Reissner-Nordström solution in tetrad representation as model for classical electron**

*Monday, 22 October 2018 15:40 (150)*

The exact Reissner-Nordström solution of the Maxwell and Einstein equations corresponding the electromagnetic field configuration localized in the region with the range of about  $10^{-34}$  cm is considered as a model for the classical electron. It is shown that in the tetrad representation, in spite of singularities of the electromagnetic and gravitational fields, there are solutions with the finite total Lagrangian and total electron mass. It is argued that the gravitational force can play a crucial role in the structure of elementary particles.

**Primary author(s)** : Dr. MANAENKOV, Serguei (NRC "Kurchatov Institute")

**Presenter(s)** : Dr. MANAENKOV, Serguei (NRC "Kurchatov Institute")

**Session Classification** : Poster session and coffee-buffet

**Track Classification** : Gravitation and cosmology