

## Particle motion analysis in a regular black hole solution

*Sunday 9 September 2018 09:30 (20 minutes)*

The main goal of this work is to analyze the motion of different types of particles in a regular black hole solution obtained by Bronnikov in 2001. The trajectories are obtained through numerical integration of the equations of the orbits (using the program Maple), after the analysis of the effective potential of each case. The results are compared to those of the Reissner-Nordstrom black hole. It is also important to mention that we look to expand this work to study the energy conditions at the center of the regular solution. Due to Raychaudhuri's theorem, the regularity of the solution has to do with the violation of the strong energy condition.

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