

## A study in progres about a dynamical gravastar solution

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We present the state of research devoted to investigate the consequences of a formerly proposed regular solution at the origin for the Einstein-Klein-Gordon equations. We implement a match with the Schwarzschild solutions with a zero scalar field outside a spherical region. The configuration of fields are used as a first step in an iterative process to calculate the vacuum expectation value of the energy-momentum tensor, aiming at further solving the Einstein semi-classical equation. The result shows the quantum corrections to the previous solution. It is expected that further steps in the iterative process will regulate the previous solutions, by leading to the convergence of the iterative solution. The first step in the iteration solution and an explicit dependence of the expectation value of the energy-momentum tensor with the metric are found.

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