
**Astrophysical images of static bosons stars in the Einstein-Friedberg-Lee-Sirlin theory**

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Boson stars are non-topological solitons presented as viable candidates for black hole mimickers. For a certain set of parameters, these stars are stable and additionally admit a robust formation mechanism called gravitational cooling. The theoretical description of these solutions was first developed by Kaup in 1968, where he obtained a boson star solution by considering a complex scalar field within the framework of general relativity. The solution found by Kaup describes a static star without self-interaction terms, now known as mini-boson stars. We investigate static boson star solutions within the Einstein-Friedberg-Lee-Sirlin (E-FLS) theory, focusing on their phenomenological aspects, especially circular timelike orbits and circular photon orbits. To explore the astrophysical signatures of these stars, we generated images assuming they are surrounded by a geometrically thin accretion disk, considering both optically thin and optically thick disk models. We present astrophysical images of E-FLS stars considering different values of the parameters that describe these solutions.