

Abstract Submitted
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Stability and maximal compactness of relativistic boson stars
NIKOLAY SUKHOV, FRANS PRETORIUS, Princeton University — We present on progress investigating stability and maximal compactness of relativistic boson stars with non-linear potential. It has been shown that there exist relativistic boson stars so compact that they possess bound circular null geodesics, however a conjecture by Keir suggests that such stars are dynamically unstable in the spherically symmetric case. We test the conjecture and investigate the stability bounds of the boson stars.

Nikolay Sukhov
Princeton University

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