

Abstract Submitted
for the APR08 Meeting of
The American Physical Society

Differentially rotating neutron stars: A perturbative study¹

ADAMANTIOS STAVRIDIS, Washington University, St. Louis — We present a study of non-axisymmetric oscillations of differentially rotating neutron stars in the perturbative framework of General Relativity. Differential rotation plays an important role in nascent neutron stars, and recent numerical studies have shown that it can be responsible for an instability at low values of the ratio T/W . We study the oscillation spectrum of those stars and we investigate the possible effect of the existence of the corotation band on the low T/W instability.

¹Supported in part by the National Science Foundation PHY 06-52448.

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Date submitted: 07 Jan 2008

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