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Stiffness effects on the dynamics of bar-mode instability in full General Relativity FRANK LÖFFLER, Louisiana State University, ROBERTO DE PIETRI, ALESSANDRA FEO, LUCA FRANCI, Parma University — We present results on the effect of the stiffness of the equation of state on dynamical bar-mode instability in rapidly rotating polytropic models of neutron stars in full General Relativity. We determine the change on the threshold for the emergence of the instability when the adiabatic Γ index is changed from 2 to 2.75 to mimic the behavior of realistic equation of state. We also extend the analysis to low value of the instability parameter β to check for the presence of low-β or shearing instabilities.

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