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## The scenario of two families of compact stars

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We propose an astrophysical scenario in which hadronic stars and quark stars coexist. While hadronic stars would populate a branch of very compact objects (radii measurements indicate the existence of such configurations in some cases), quark stars would instead populate a branch of very massive stars (e.g. the two solar mass star PSR J1614-2230). The conversion process between a hadronic star and a quark star will be discussed in its turbulent and diffusive regimes and its phenomenological consequences for long and short gamma-ray-bursts will be also presented in connection with the protomagnetar model.

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Phys.Rev. C92 (2015) no.4, 045801

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### Summary

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