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A New Look at Quark Stars

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Quark stars —a gravitationally bound quark-gluon plasma —have been hypothesized to be the last gravitationally stable state of matter preceding collapse into a black hole. Originally such stars were thought to necessarily contain a significant component of strange quarks, but recent work has shown that up-down quark matter can be more stable than ordinary nuclei at sufficiently large baryon number beyond the periodic table. I shall describe how such up-down quark stars open up new possibilities for astrophysical searches for such objects as well as new tests of general relativity.

Keyword-1

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Keyword-2

Quark

Keyword-3

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