

Abstract Submitted
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I-Love-Q Anisotropically KENT YAGI, NICOLAS YUNES, Montana State University — Recent work shows that rotating incompressible stars with anisotropic matter in the weak-field limit become prolate, which is rather counter-intuitive. We construct slowly-rotating, incompressible and anisotropic stellar solutions in full General Relativity valid to quadratic order in spin and show that the stellar shape shifts from prolate to oblate as one increases the relativistic effect. Anisotropic stars are also interesting because they can be more compact than isotropic stars, and can even be as compact as black holes. We present how stellar multipole moments approach the black hole limit as one increases the compactness, suggesting that they reach the black hole limit continuously.

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