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EoS for dense matter with a QCD phase transition

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We construct a dense matter EoS starting from a DD2 model with excluded volume corrections at low densities. The high density part is given by a NJL model with multi-quark interactions. This EoS is characterized by increasing speed of sound below and above the phase

transition region. The first order transition region has a large latent heat leaving a distinctive signature in the M-R relations in terms of twin stars. We will show how present mass measurements and fictitious radii data constrain model parameters

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