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## Quasi-Particle Quark-Nuclear Hybrid EoS with Excluded Volume Effects

In this poster, we outline a two-phase description of the quark-nuclear matter hybrid equation of state that takes into account effects of phase space occupation (excluded volume) in both, the hadronic and the quark matter phases. For the nuclear matter phase, the reduction of the available volume at increasing density leads to a stiffening, while for the quark matter phase a reduction of the effective string tension in the confining density functional is obtained. The deconfinement phase transition in the resulting hybrid equation of state is sensitive to both excluded volume effects. As an application, we consider matter under compact star constraints of electric neutrality and  $\beta$ -equilibrium. We obtain mass-radius relations for hybrid stars that fulfill the  $2M_{\odot}$  constraint and exhibit the high-mass twin phenomenon. Both features depend sensitively on the excluded volume.

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