

# XVth Quark Confinement and the Hadron Spectrum



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## Predictions for neutron star mergers from the gauge/gravity duality

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The gauge/gravity duality, combined with information from lattice QCD, nuclear theory, and perturbative QCD, can be used to constrain the equation of state of hot and dense QCD. I discuss an approach based on the holographic V-QCD model, which includes both nuclear and quark matter phases, separated by a first order phase transition. By using this model in state-of-the-art simulations of neutron star binaries, I study the formation of quark matter during the merger process, and its effect on the threshold mass for prompt collapse into a black hole.

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