

## **Echo of the Dark: Gravitational Waves from Dark SU(3) Yang-Mills Theory**

*Friday, 9 December 2022 15:00 (1 hour)*

We analyze the phase transition in improved holographic QCD to obtain an estimate of the gravitational wave signal emitted in the confinement transition of a pure SU(3) Yang-Mills dark sector. We derive the effective action from holography and show that the energy budget and duration of the phase transition can be calculated with minor errors. These are used as input to obtain a prediction of the gravitational wave signal. To our knowledge, this is the first computation of the gravitational wave signal in a holographic model designated to match lattice data on the thermal properties of pure Yang-Mills.

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