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The application of machine learning in holographic QCD

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In this talk, I will present the application of machine learning in holographic QCD. By incorporating the equation of state and baryon number susceptibility data, we leverage machine learning techniques to construct a holographic model capable of predicting the location of the critical endpoint (CEP). Furthermore, we enhance the model using Bayesian inference, providing a refined CEP prediction that accounts for uncertainties from lattice QCD. Additionally, we apply the constructed model to compute various physical observables, including transport properties and the heavy quark potential.

Primary author: 陈, 勋 (Central China Normal University)

Co-authors: HUANG MEI, Mei (IHEP, CAS); Prof. ZHOU, Kai (香港中文大学（深圳）)

Presenter: 陈, 勋 (Central China Normal University)

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