

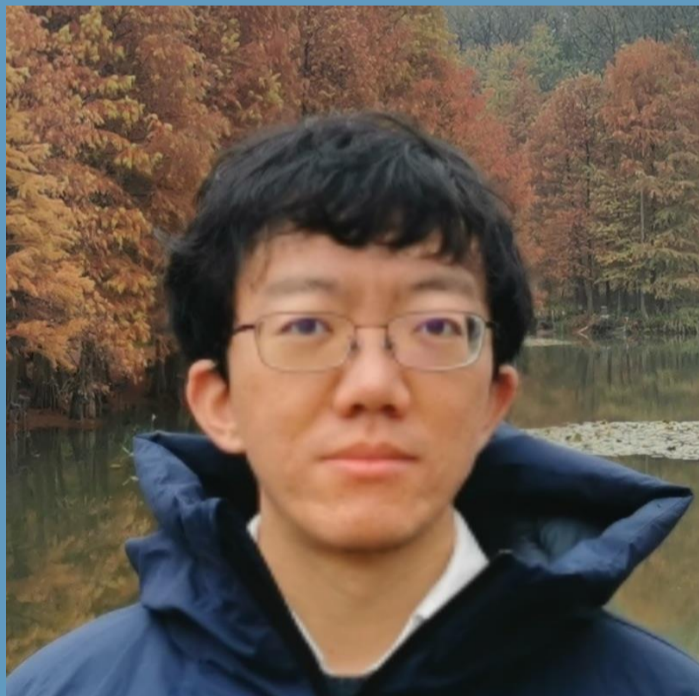
世纪物理情·系列讲座

Recent developments in numerical conformal bootstrap

【摘要】

The numerical bootstrap method has become an indispensable tool for studying strongly coupled CFTs. This method transforms abstract principles, such as unitarity and crossing symmetry, into precision predictions on physical observables. In this talk, I will review a decade of groundbreaking developments in the numerical bootstrap. I will discuss how this approach has solved challenging models -- such as the 3D Ising, Super-Ising, $O(N)$, and Gross-Neveu-Yukawa models -- with unprecedented precision. These results yield remarkable insights into real-world phenomena, from critical transitions in Helium-4 superfluidity and perovskite materials to deconfined quantum criticality.

【报告人简介】



Dr. Ning Su obtained his Ph.D. from Texas A&M University in 2016. After graduation, he worked at Institute of Theoretical Physics Chinese Academy of Sciences, EPFL, U of Pisa, Caltech, MIT as postdoc fellows. His main research interests are bootstrap method and its applications to condensed matter and high energy theories.

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