世纪物理情·系列讲座

First-principles exploration of quantum material universe:

Challenges and opportunities

【报告人】
徐勇
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清华大学高等研究院
科学馆104报告厅

【摘要】

Ab initio methods based on density functional theory have become indispensable to the study of condensed matter physics and materials science, which are revolutionizing the landscape of modern science research. Recently great opportunities have emerged for first-principles quantum materials research, benefitting from exciting developments in physics and artificial intelligence. In this talk, I will present our recent research progresses on exploring emergent quantum materials and developing deep-learning *ab initio* methods. Future challenges and opportunities of the field will be discussed.

【报告人简介】

Dr. Yong Xu is currently a professor at Department of Physics, Tsinghua University and a unit leader at Center for Emergent Matter Science (CEMS), RIKEN. He received his B.S. and Ph.D. degrees both at Tsinghua University, then worked at Fritz Haber Institute of Max Planck Society and Stanford University as a postdoc and a research scholar, respectively. His main research interest is to understand and predict emergent quantum materials from first principles.

主办单位:清华大学高等研究院