



复旦大学物理系 Colloquium

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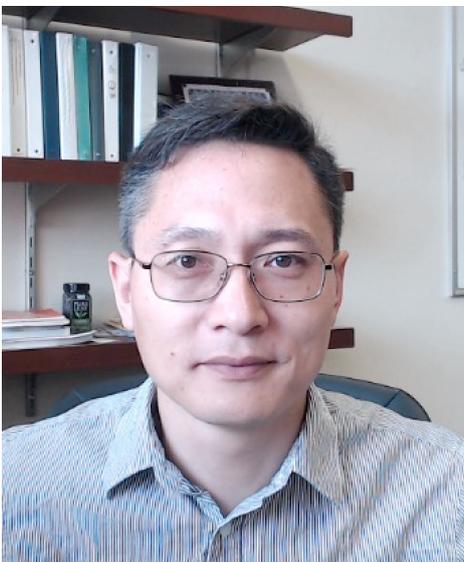
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Jet physics: a new frontier in strong interactions

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Abstract: The particle collisions observed in high energy colliders are dominated by the phenomenon of jets. These are collimated sprays of particles that result directly from quantum chromodynamics (QCD), the fundamental theory of strong interactions. Following advances in both experimental techniques and theory, the study of jets has become a powerful tool for the exploration of fundamental properties of QCD under different conditions, and for the search for new phenomena in high-energy collisions. Jets can now be characterized not just by their overall direction and energy but also by their internal substructure. Jet physics is at the forefront of phenomenology studies at the Large Hadron Collider (LHC) and at the future Electron Ion Collider (EIC). In this talk, I will highlight novel experimental opportunities and new theoretical studies of the physics of jets, how they affect probes of QCD at the LHC and studies of the quantum imaging of protons at the EIC.



Biography: Zhongbo is currently an associate professor at Department of Physics and Astronomy, and Bhaumik Institute for Theoretical Physics at University of California Los Angeles (UCLA). He is also an associate member at the joint Center for Frontiers in Nuclear Science of Stony Brook University and Brookhaven National Laboratory. Before he joined UCLA in 2016, Zhongbo has worked at Los Alamos National Laboratory, first as a Director's postdoctoral associate, a J. Robert Oppenheimer Fellow, and then a staff scientist. He has also worked at RIKEN BNL Research Center as a research associate. He has won an early CAREER award from National Science Foundation. He is currently leading a UC Southern Hub for Electron-Ion Collider Physics.