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**The 93rd HENPIC seminar by Prof. Nihar Ranjan Sahoo, Shandong University (山东大学), Feb.27, 2020, Thursday, 10:30am (Beijing time)**

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Title: Direct photon+jet and h+jet measurement: STAR heavy-ion physics to future forward upgrade

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Abstract:

The hot-dense QCD medium, popularly known as Quark-Gluon Plasma (QGP), is believed to be formed in the relativistic heavy-ion collider experiments. A high energetic parton traversing through this state of matter loses energy by radiating gluons due to its high virtuality, and then fragments into colorless hadrons; this phenomenon is coined as jet-quenching that was first observed at RHIC and later confirmed at the LHC. In this talk, I will discuss the recent RHIC results on direct-photon+jet and hadron+jet to study the in-medium parton energy loss, and also new emerging topics in this direction. I also plan to shed light on the new techniques developed for the jet measurement in heavy-ion collisions and its further application in the future jet measurement at RHIC experiments.

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