Future physics program at RHIC-STAR

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The Solenoidal Tracker at RHIC (STAR) has excellent tracking and particle iden-1 2 tification capabilities at mid-rapidity, and the recent detector upgrade at forward rapidity has significantly extended its acceptance. With this unique detector capa-3 bility at RHIC, STAR will collect $\sqrt{s_{\rm NN}} = 200$ GeV proton-pronton, proton+gold, 4 and gold+gold collision data from 2023 to 2025 along with the sPHENIX experi-5 ment. In this talk, future physics program at STAR will be discussed, particularly 6 focusing on how to address questions about the inner workings of the Quark Gluon 7 Plasma. 8