

1 Highlights from STAR Heavy Ion Program
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5 The Solenoidal Tracker at RHIC (STAR) experiment utilizes its excellent mid-
6 rapidity tracking and particle identification capabilities, and the fine
7 granularity of its electromagnetic calorimeter, to study the emergent properties
8 of Quantum Chromodynamics (QCD). The STAR heavy-ion program at
9 vanishingly small baryon density is aimed to address questions about the
10 quantitative properties of the strongly-interacting Quark Gluon Plasma (QGP)
11 created in high energy collisions. At finite baryon densities, the questions
12 concern the phases of nuclear matter (the QCD phase diagram) and the nature
13 of the phase transition, namely: what is the onset collision energy for the
14 formation of QGP? What is the nature of phase transition in heavy-ion
15 collisions?

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17 In this talk we'll highlight a few selected results for the soft and hard probes via
18 showing various observables for different quark flavors at different center of
19 mass energies.