



Contribution ID: 143

Type: **Talk**

## Highlights from STAR Heavy Ion Program

*Thursday, 7 October 2021 16:00 (30 minutes)*

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

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

### Is this abstract from experiment?

Yes

### Name of experiment and experimental site

STAR

### Is the speaker for that presentation defined?

Yes

### Details

Ahmed M. Hamed

### Internet talk

Maybe

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**Session Classification:** Interdisciplinary session