

1 **Strangeness Production in Fixed-Target Au+Au collisions at $\sqrt{s_{NN}} = 7.2$**
2 **GeV from STAR**

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6 **(For the STAR Collaboration)**

7 Strangeness production is considered a sensitive probe to the properties of the
8 medium created in heavy-ion collisions. The RHIC Beam Energy Scan Program
9 (BES) is designed to investigate the QCD phase diagram and search for a potential
10 QCD critical point. The BES-II program covers a wide energy range from $\sqrt{s_{NN}} =$
11 3 to 54.4 GeV. Of particular interest is the high baryon density region which can
12 be explored through production of strange hadrons (K_s^0 , Λ) at lower energies from
13 the fixed target program. Such studies can also help understand their production
14 mechanism in high baryon density medium.

15 In this poster, we will report measurements of strange particle (K_s^0 , Λ) produc-
16 tion in Au+Au collisions at $\sqrt{s_{NN}} = 7.2$ GeV. The data were taken in 2018 by the
17 STAR experiment with the fixed target configuration. After correcting for detector
18 acceptance and tracking efficiency, invariant yields and rapidity density distributions
19 of K_s^0 and Λ will be presented. The physics implications on the collision dynamics
20 will also be discussed.