

1 **Identical Pion Interferometry from Au+Au Collisions at $\sqrt{s_{NN}} = 3.2,$**
2 **3.5, and 3.9 GeV in the STAR Experiment at RHIC**

3 Vinh Luong (for the STAR Collaboration)

4 Joint Institute for Nuclear Research

5 Two-pion interferometry provides access to the spatial and temporal size,
6 shape and evolution of their sources created in heavy ion collisions and hence
7 offers strong constraints for the theoretical models. In this work, we will report
8 the measurement of correlation strength (λ) and femtoscopic radii ($R_{\text{out}}, R_{\text{side}},$
9 $R_{\text{long}}, R_{\text{out-long}}$) extracted from the two-pion correlation function in Au+Au
10 collisions at $\sqrt{s_{NN}} = 3.2, 3.5,$ and 3.9 GeV. The dependences of these pa-
11 rameters on pair transverse momentum, pair rapidity, collision centrality, and
12 collision energy will be presented and their physics implications will be dis-
13 cussed.