

# Results from Three Particle HBT Interferometry at STAR

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## Abstract

RHIC collisions provide the highest pion multiplicities available in the lab. When pion phase space density is growing the effects of multi-particle correlations are expected to play an increasing role. Three-particle HBT interferometry of like-signed pions allows the measurement of source coherency and asymmetry [1] through the Heinz and Zhang phase factor [2]. We will present preliminary results of the three-pion correlation analysis performed by the STAR Collaboration at RHIC. In particular we will show phase factor as a function of centrality.

1. T.J. Humanic, Phys Rev C 60, Art. 014901, 3 (1999). 2. U. Heinz and Q. H. Zhang, Phys Rev C 56, 426 (1997).

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