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Detailed source structures of hadron emissions measured by RHIC-PHENIX AKITOMO ENOKIZONO, Oak Ridge National Laboratory, PHENIX COLLABORATION — During the first decade of 21th century, experiments at the Relativistic Heavy Ion Collider at BNL have revealed detailed insights into the hot and dense matter created in Au+Au collisions at 200 GeV per nucleon, which is reasonably described as an almost perfect liquid state by hydrodynamics models. Despite our increased understanding of this partonic matter, there still remain some open questions with respect to its space-time evolution. Studies of the space-time evolution of the collisions are needed to elucidate the properties of the hot, dense, and strongly interacting matter, probe the time scale and degree of thermalization, and investigate the order of the deconfinement phase transition. Two-particle interferometry, aka HBT, is a powerful tool for measuring the space-time extent of particle-emitting sources. In addition to the traditional HBT analysis, recent developments of HBT-imaging analyses allow us to measure more detailed model-independent source functions of particle emissions. In this talk, we will show the result of the traditional 3D and 1D imaging analyses for charged kaons in Au+Au at 200 GeV, compared with the previous results for charged pions. Also the latest status of PHENIX-HBT analyses for the other particles/collision systems will be reported.

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