Results of Identified pions, kaons, (anti-)protons in Au+Au collisions at $\sqrt{s_{NN}}=200$ GeV from STAR

HAI DONG LIU, STAR COLLABORATION — Ultra-relativistic Au+Au collisions at RHIC create a hot and dense medium that exhibits novel properties. Study of these properties and hadronization mechanisms of the medium requires identified particle results over wide transverse momentum ($p_T$) range. In this talk, we will present the results of pions, kaons and (anti-)protons $p_T$ spectra in Au+Au collisions at $\sqrt{s_{NN}}=200$ GeV using the STAR detector at RHIC. The particle identification is achieved by a combination of the Time-Of-Flight (TOF) and the Time Projection Chamber (TPC) detectors. The $p_T$ range is measured up to 12 GeV/c for pions, 3 GeV/c for kaons and 6 GeV for (anti-)protons. The particle ratios and the nuclear modification factors ($R_{AA}$ and $R_{CP}$) will be presented. The physics indications of these measurements will be discussed.