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PHENIX overview

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Relativistic heavy ion collisions have been considered as a unique way to create and study the quark-gluon plasma (QGP) where the quarks and gluons are de-confined. PHENIX, which stands for the Pioneering High Energy Nuclear Interaction eXperiment, was operated for 16 years until 2016, and has been producing physics results from the data taken until then. Over this period, collision data were recorded spanning nine collision energies from 7.7 GeV to 510 GeV, and nine collision systems using Au, U, Cu, Al, p, and d. PHENIX is capable of detecting a wide variety of particles such as leptons, photons, light and heavy hadrons, with which many observables including but not limited to jets, particle correlations, single hadron spectra and flow have been measured and studied. Much progress is still being made in analysis of the data we took.

In this overview PHENIX talk, we will report the latest results from PHENIX, both on soft and hard probes from small to large systems.

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