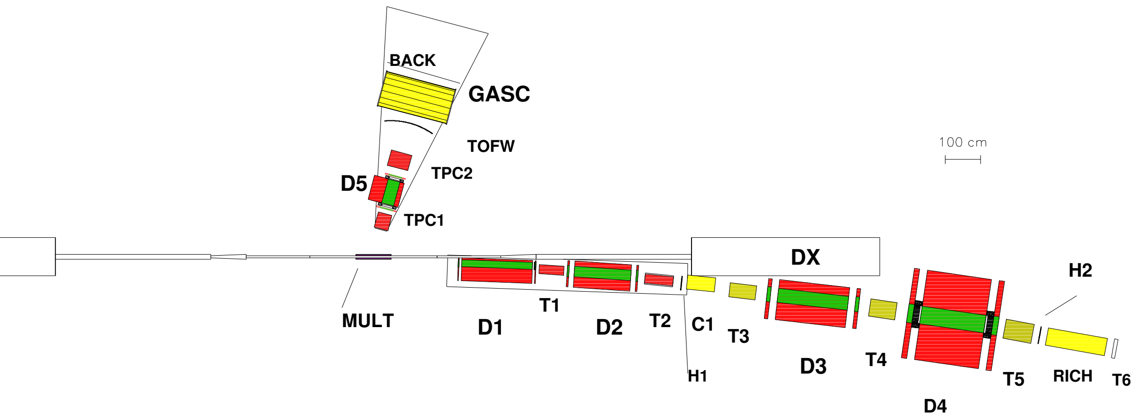
Broad RAnge Hadron Magnetic Spectrometers

BRAHMS at RHIC

BNL-CRNS,Strasbourg-Harbin Tech.-U.Kansas-NBI

NYU-TexasA&M-UC Berkeley



Physics Measurements

- $p^{\pm}$, $K^{\pm}$ and $\pi^{\pm}$ identified in wide range of rapidity, $0 < |y| < 4$, and $0.2 < p_t < 3$GeV/c. (Central and fragmentation region).
- Measure p_t spectra as a function of centrality; i.e. semi-inclusive spectra.
- Study this as function of the collision system. (Au+Au, Si+Si, p+A, and p+p)
- Capabilities for HBT and measurements of ϕ width and mass.

The results will address

Reaction dynamics: Stopping, chemical equilibration, thermalization.

$p, \overline{p}$ production: Baryochemical potential.

K^+, K^- production: Strange particle yields.

$<p_t>$ vs $\frac{dN}{dy}$ as signature for QGP.

Mini-jet production systematics. (π, K, p, $p_t > 2$ GeV/c)