The BRAHMS spectrometer efficiency

Truls Martin Larsen
University of Oslo, Norway
The BRAHMS collaboration

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The BRAHMS (*B*road *RA*nge *H*adron *M*agnetic *S*pectrometer)[1] experiment at the RHIC accelerator at Brookhaven National Laboratory, NY, USA, consist of to movable spectrometer arms, each with a limited acceptance at a given angle. The midrapidity spectrometer and the front part of the forward spectrometer consists of two TPCs (*T*ime *P*rojection *C*hambers) operating without magnetic fields, separated by dipole magnets. With these BRAHMS can inclusively measure $\pi^{\pm}$, $K^{\pm}$, p and $\overline{p}$ at $0 < |\eta| < 4$ and 0.2 GeV/c $< p_T <\sim$ 3 GeV/c.

Track reconstruction efficiency, employing the standard embedding technique for simulated tracks, are presented as functions of particle species and energy, spectrometer setting, vertex position and collision centrality. The effect of the corrections on particle yields and spectra is shown.

References

[1] http://www4.rcf.bnl.gov/brahms