PPG016 (ϕ) comparison to STAR

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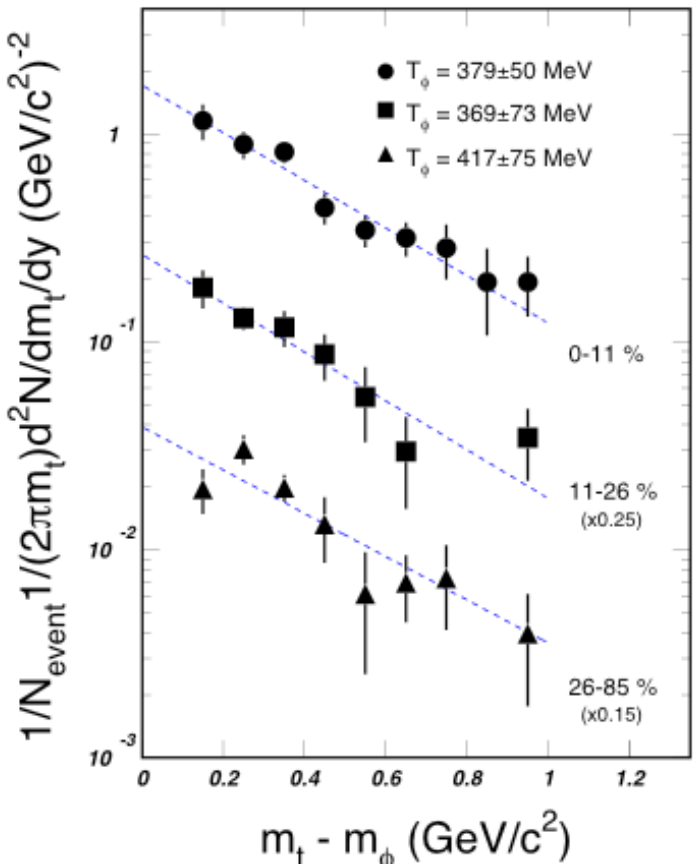
light/heavy pwg

Feb 20, 2003

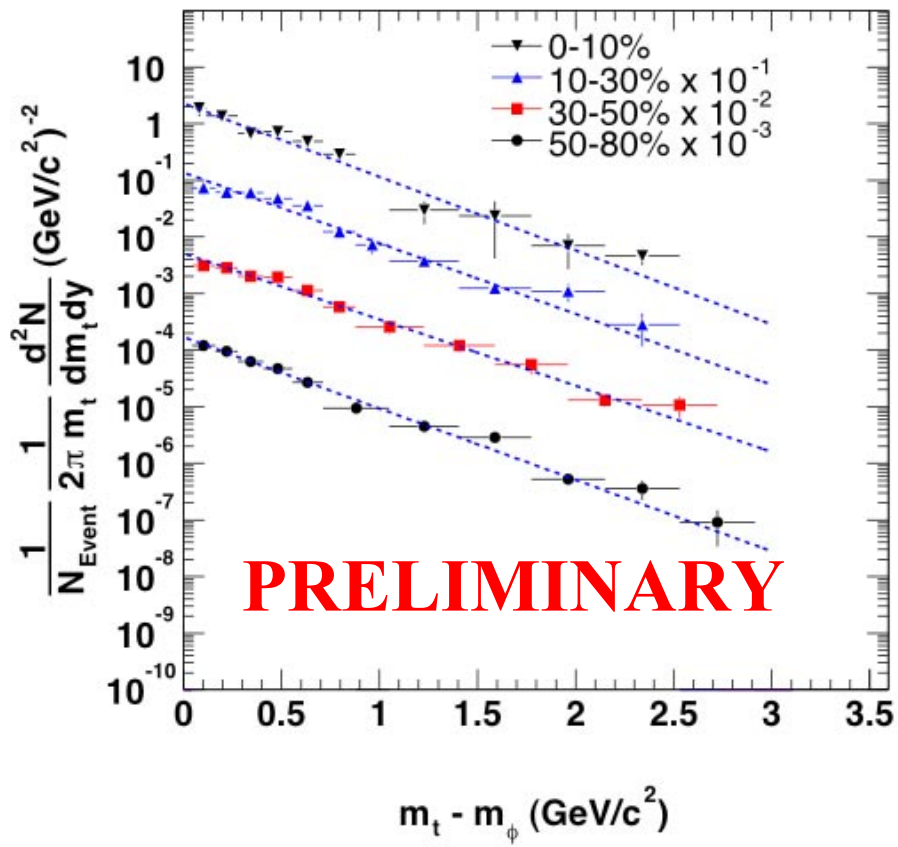
STAR Invariant Multiplicity

130 GeV



PRC, 65 041901(R) (2002)

200 GeV



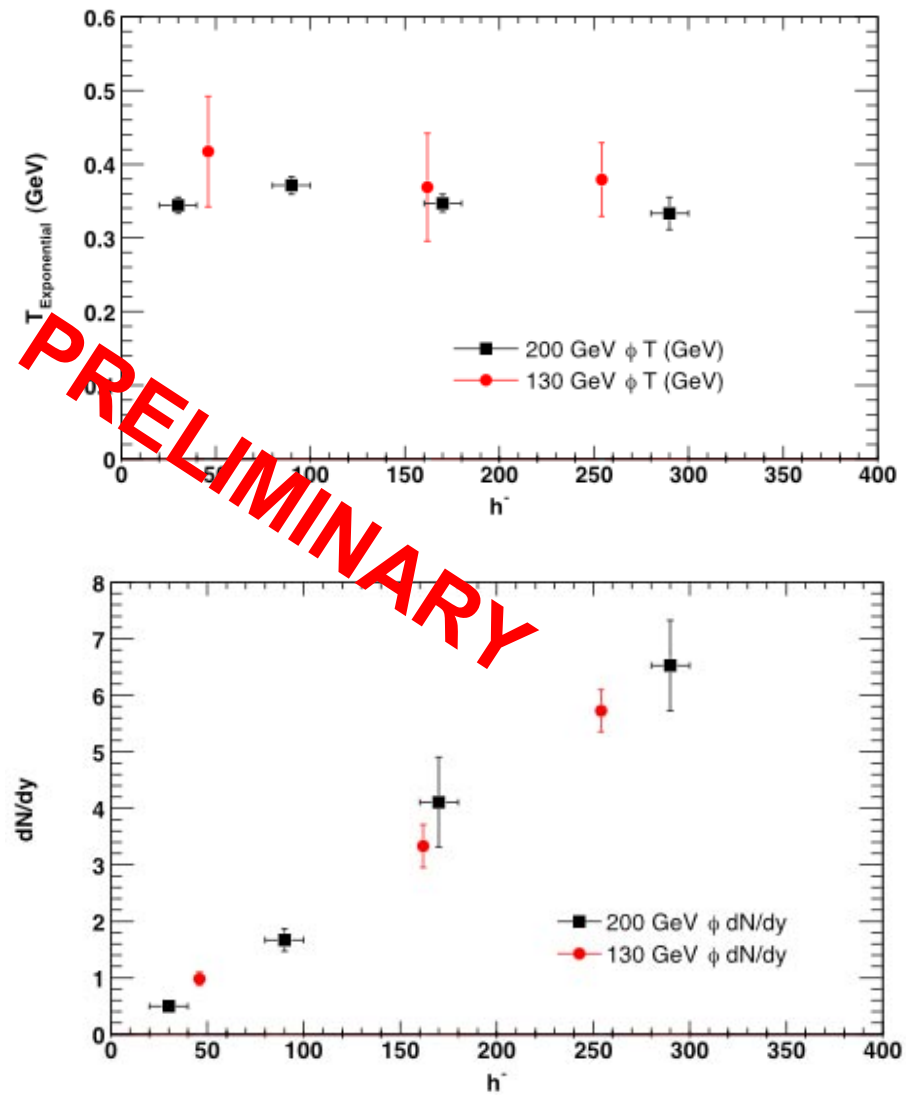
----- Mt exponential Fits

STAR $\phi \rightarrow K^+K^-$ results from QM 2003 (Eugene Yamamoto)

STAR $\phi \rightarrow K^+K^-$ results from QM 2003 (Eugene Yamamoto)

Yields and Fit Parameters

- **Results from:**
  - $|y| < 0.5$
  - Exponential fits to data
  - Statistical errors only
- **Within statistical uncertainties, exponential inverse slope parameter, T independent of centrality.**
- **Midrapidity yields scale linearly with h-.**
- **Statistical Errors only**



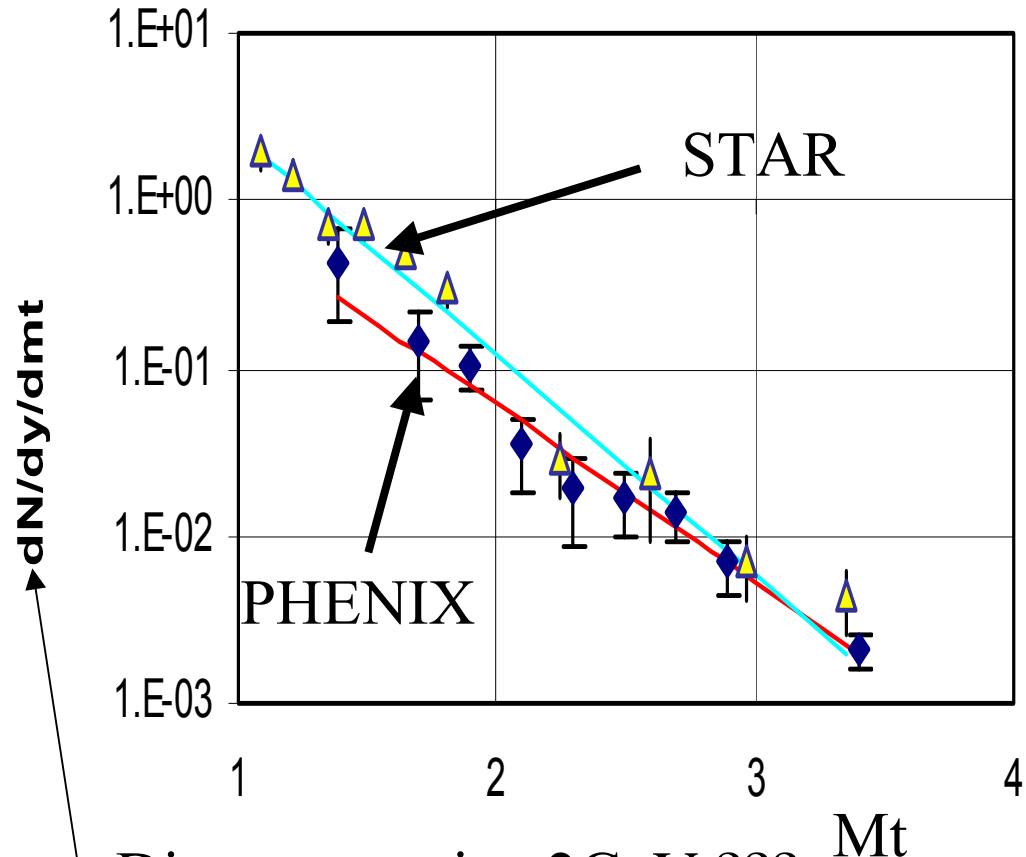
200 GeV 0-10% $\phi \rightarrow K^+K^-$

		Sigma's		
dndy	2.428	0.65	2.71E-01	4.53E-01
T	0.411	0.04	1.27E-01	3.58E-02
chisq	3.362		7.79E-02	8.10E-01
			4.79E-02	6.63E-01
			2.94E-02	9.79E-01
			1.81E-02	2.44E-02
			1.11E-02	3.67E-01
			6.82E-03	3.04E-06
			2.01E-03	2.93E-02

PHENIX
TOF only

		Sigma's	fit value	chisq
dndy	6.601	0.57	1.90E+00	2.02E-02
T	0.330	0.02	1.33E+00	2.04E-01
chisq	14.115		8.55E-01	1.11E+00
			5.66E-01	9.64E-01
			3.55E-01	1.89E+00
			2.16E-01	1.75E+00
			5.78E-02	6.30E+00
			1.98E-02	5.61E-02
			6.36E-03	5.27E-02
			2.02E-03	1.76E+00

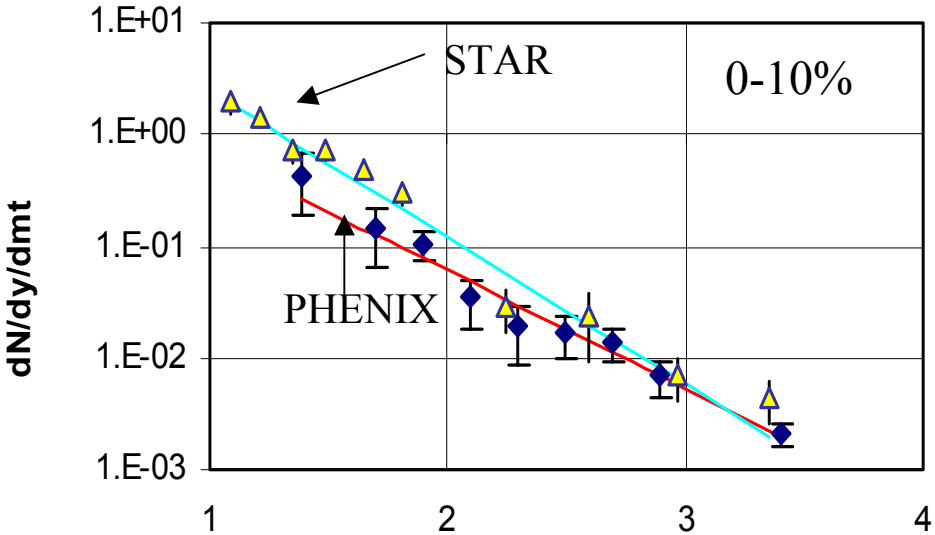
STAR

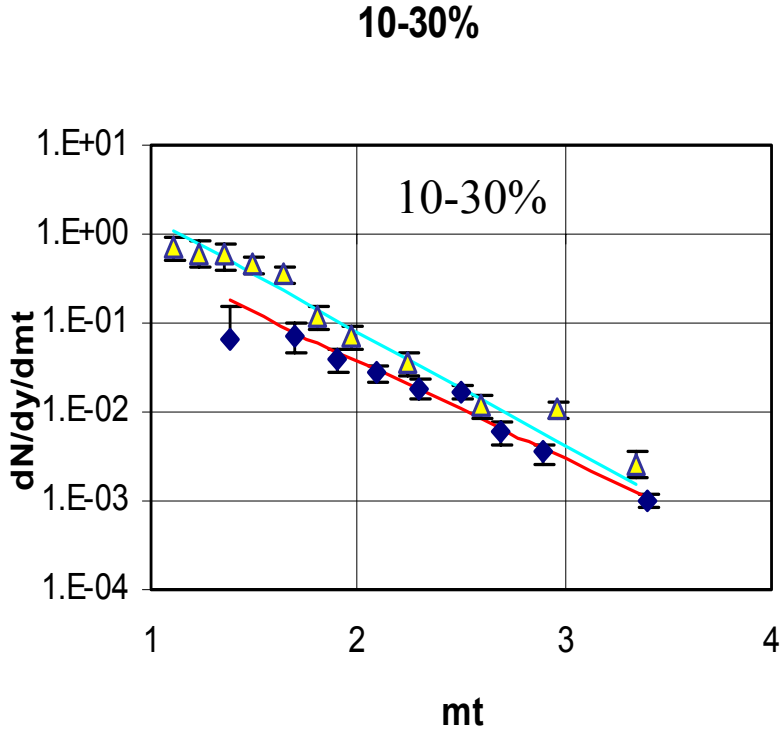


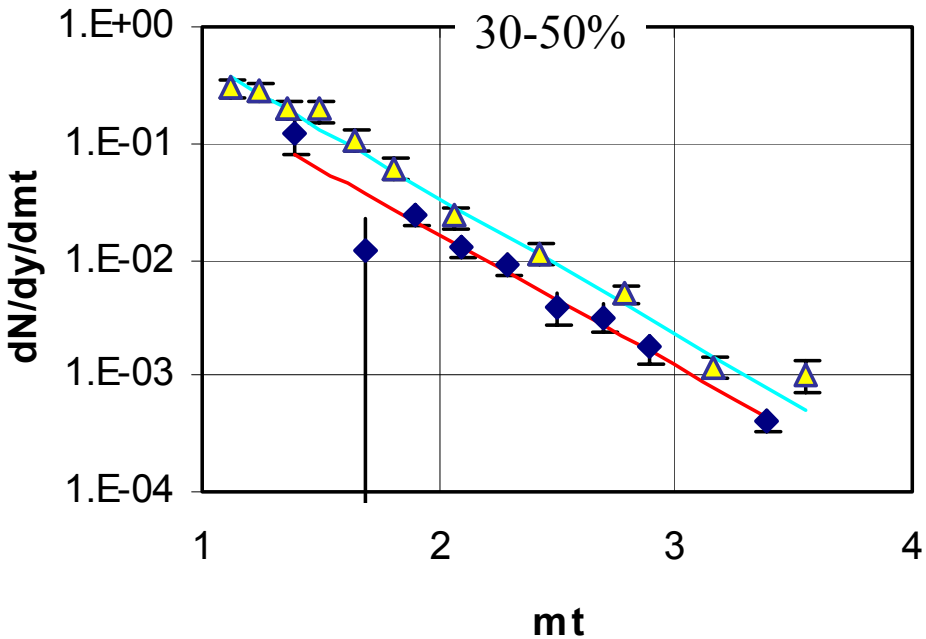
Discrepancy is <2GeV ???

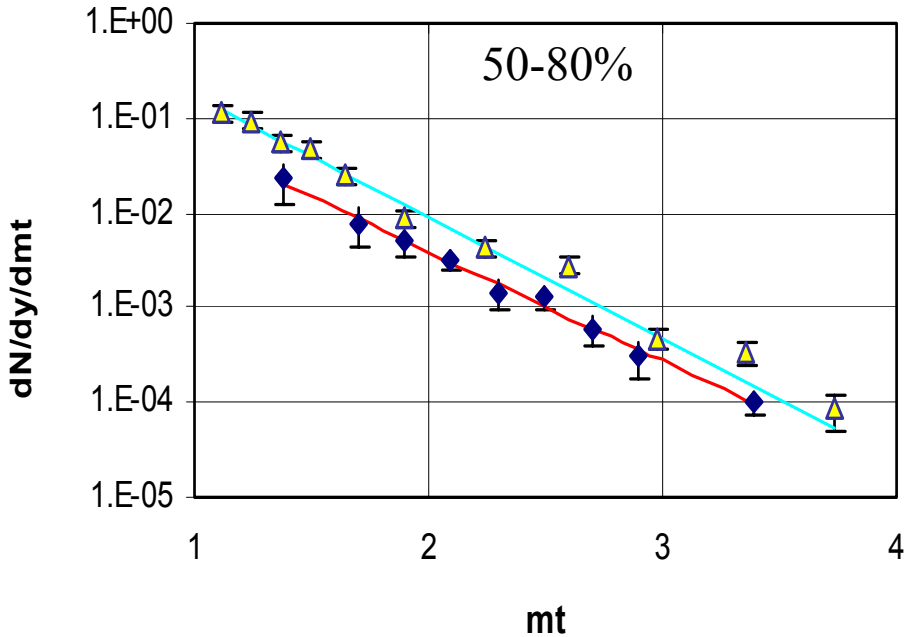
Really 1/2pi/mt/d2N/dmtdy

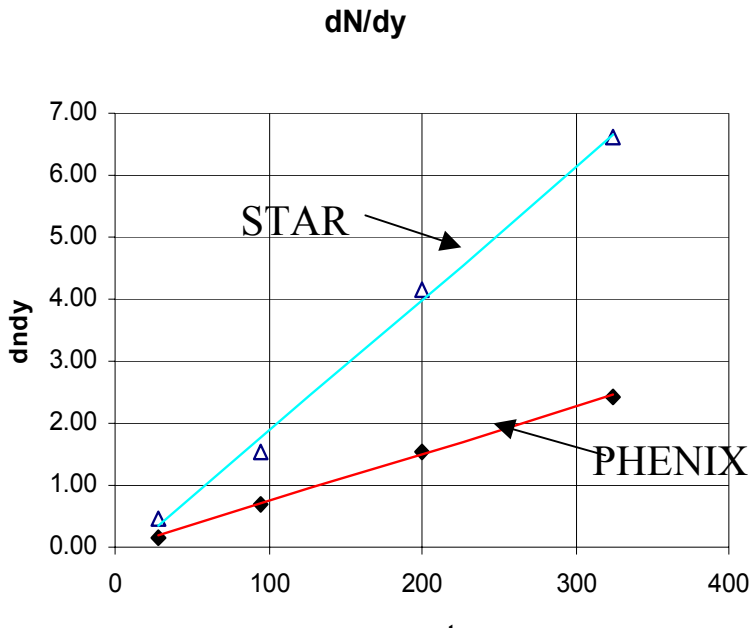
Munir redid Phenix analysis for
STAR binning, we use annote 169 for npart





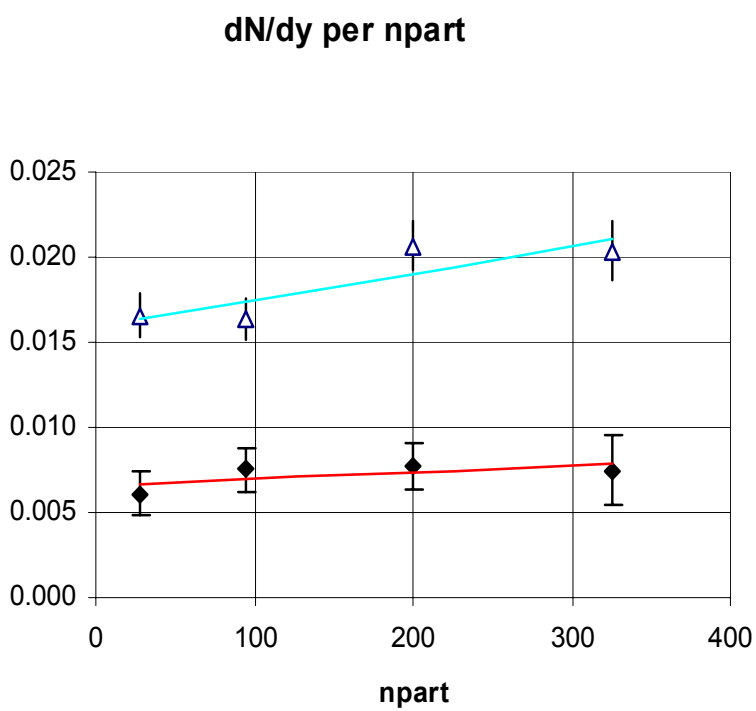
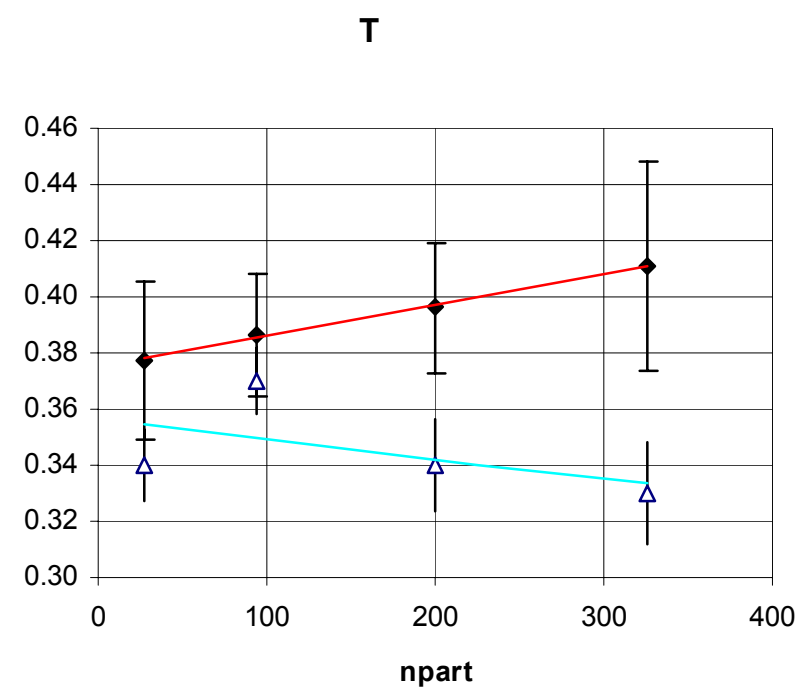






PHENIX

npart	dndy	err	pernpart		T	er
28	0.17	0.04	0.006	0.001	0.38	0.03
94	0.71	0.12	0.008	0.001	0.39	0.02
201	1.55	0.28	0.008	0.001	0.40	0.02
325	2.43	0.65	0.007	0.002	0.41	0.04

STAR

npart	dndy	err	pernpart		T	er
28	0.46	0.04	0.017	1.E-03	0.34	0.01
94	1.54	0.12	0.016	1.E-03	0.37	0.01
201	4.15	0.28	0.021	1.E-03	0.34	0.02
325	6.60	0.57	0.020	2.E-03	0.33	0.02