Some RHIC Polarimeter Analysis

by ANL People and Others

Presented by
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RSC
BNL
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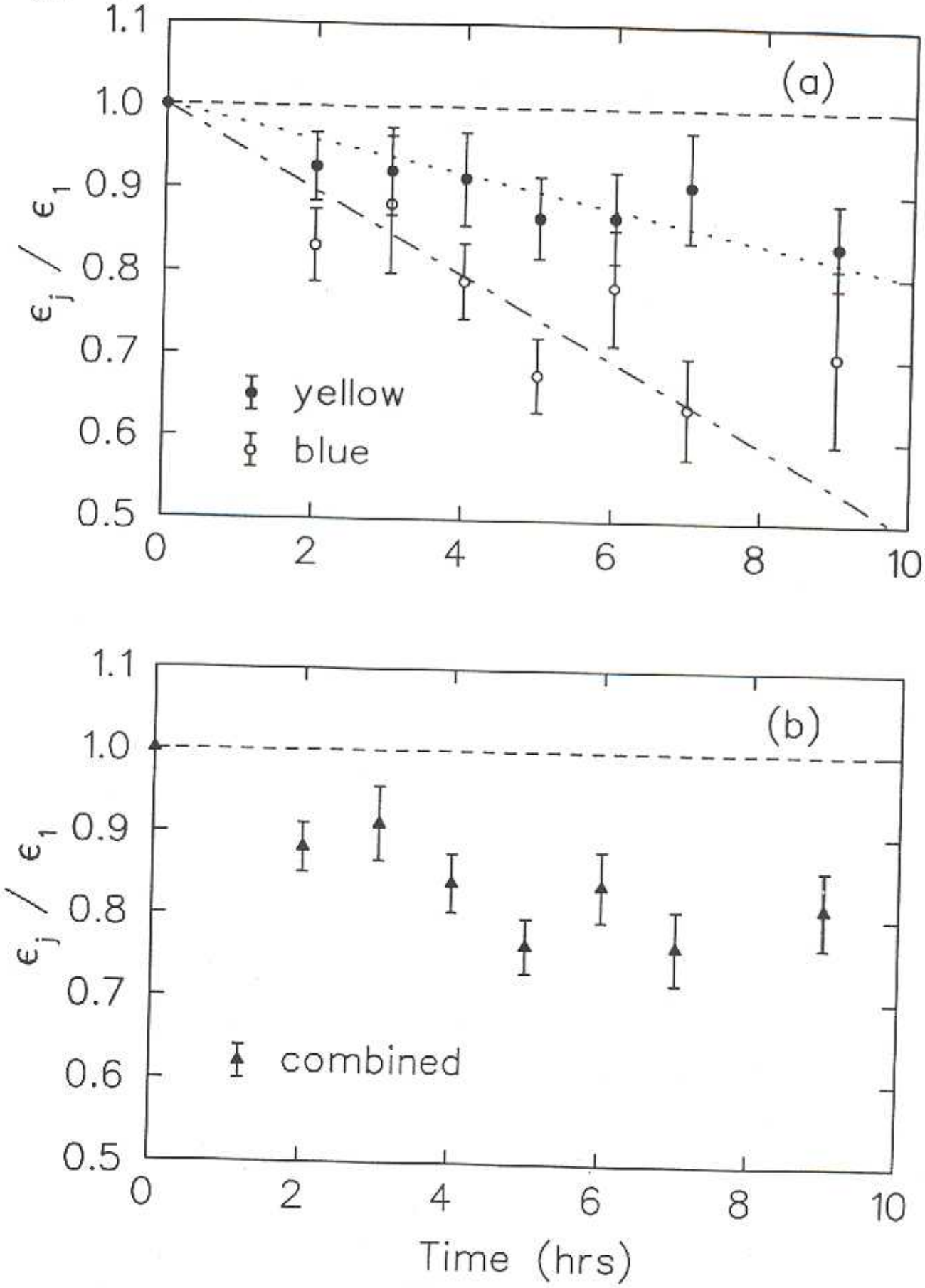
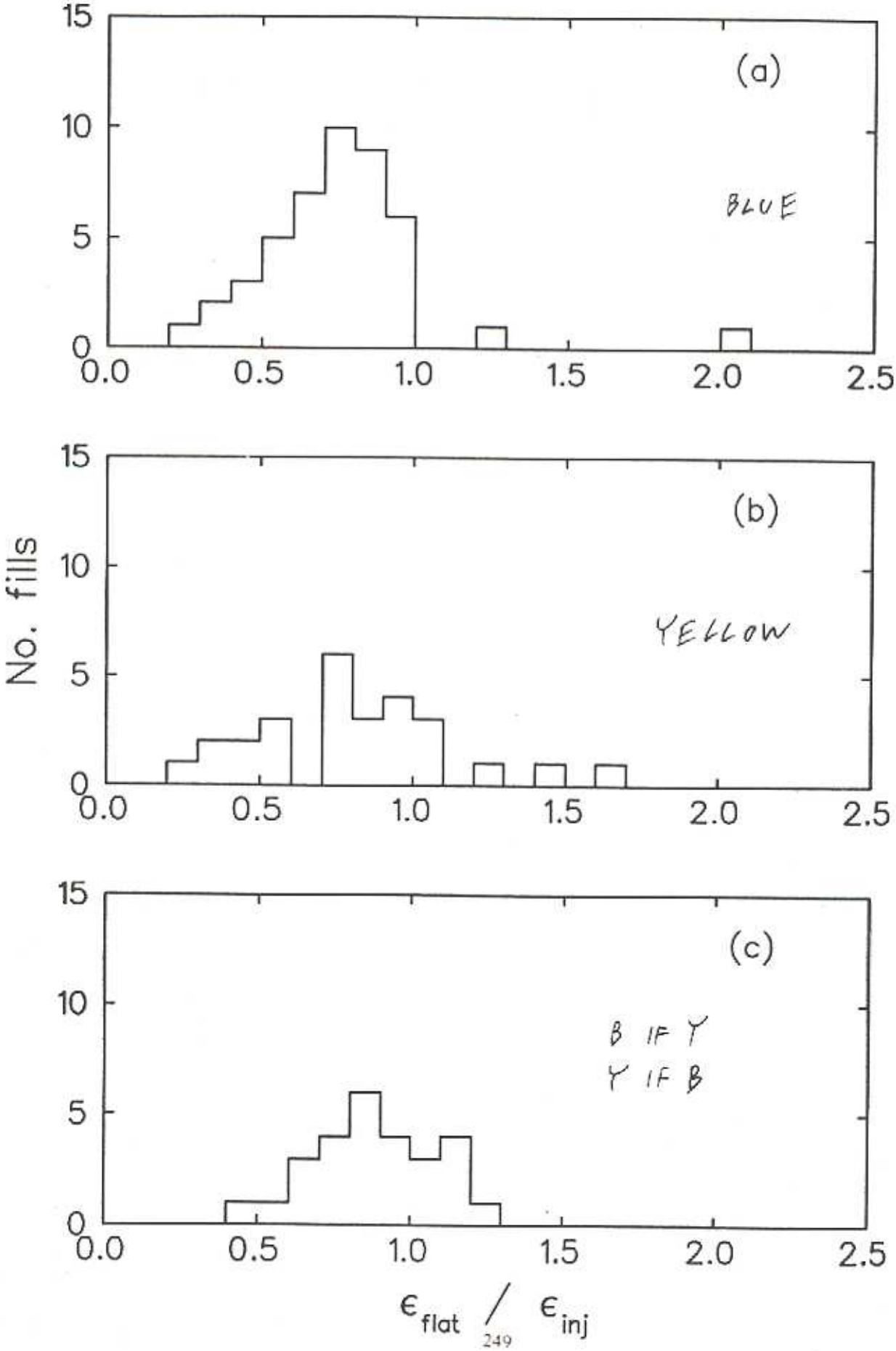
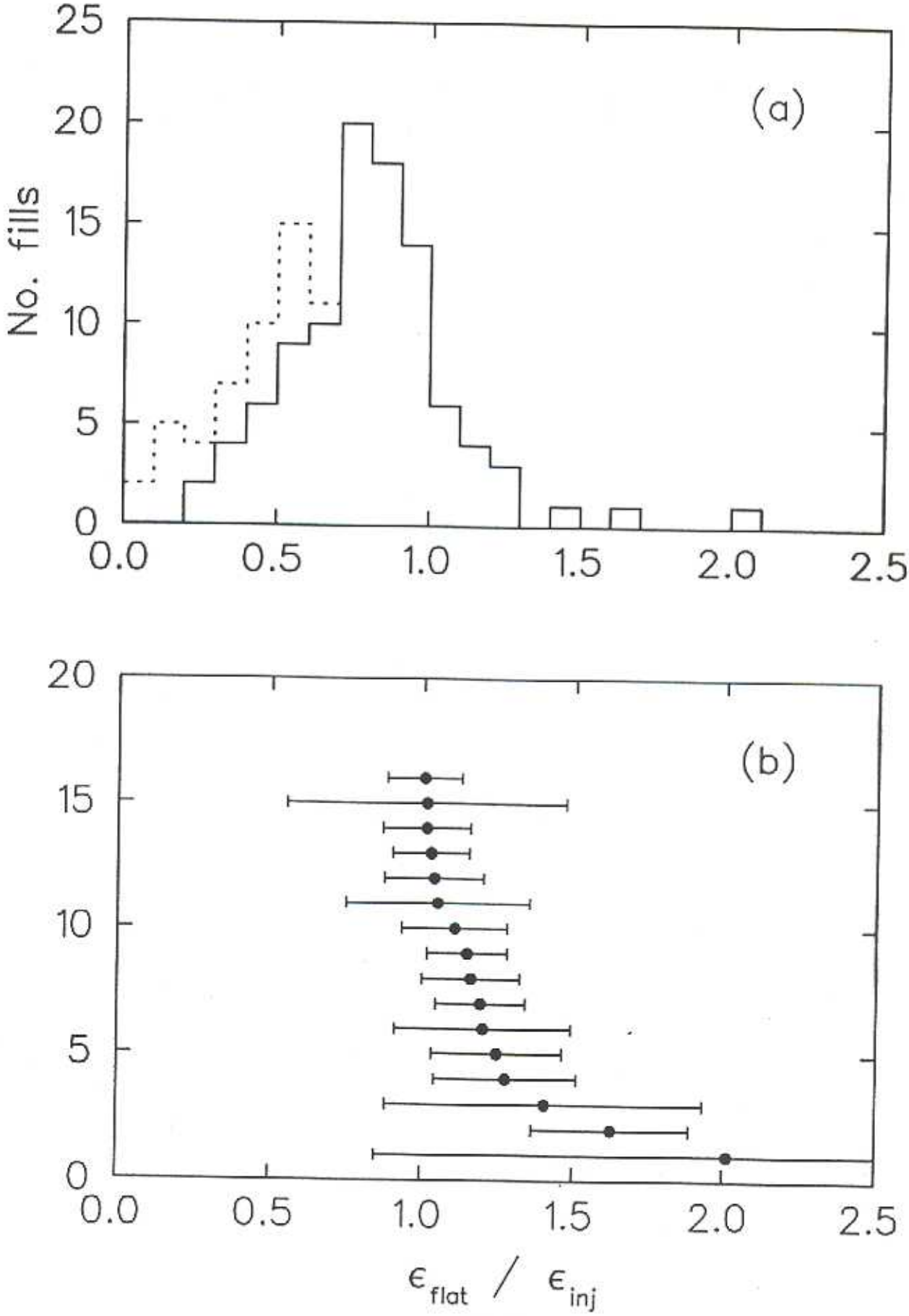
RATIO OF MEASURED CNI ASYMMETRIES DURING STORES TO THE FIRST MEASUREMENT AT FLATTOP



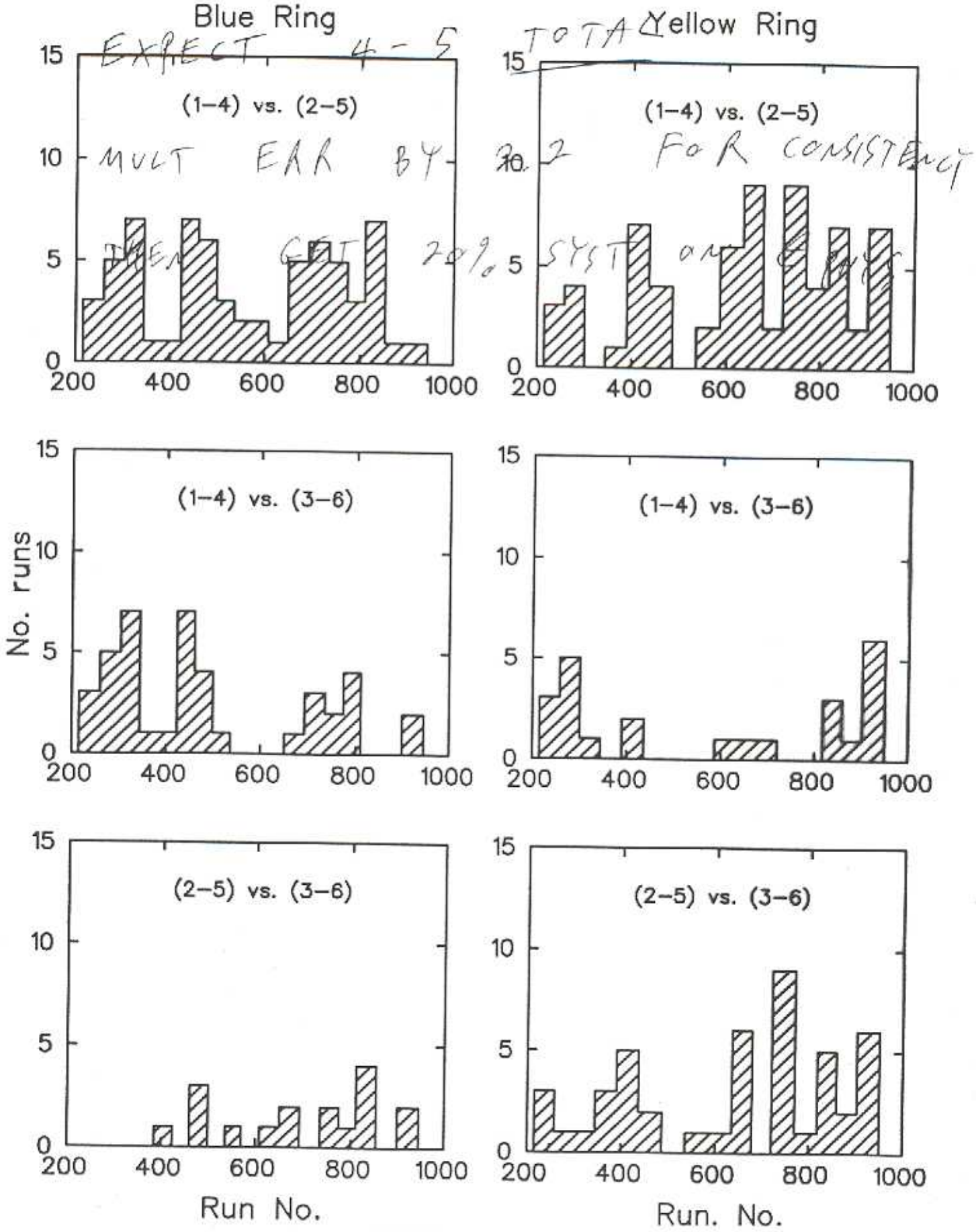
RATIO OF CNI ASYMMETRY AT FLATTOP (≥3 MEAS)
TO ASYMMETRY AT INJECTION



RATIO OF CNI ASYMMETRY AT FLATTOP
TO ASYMMETRY AT INJECTION



NUMBER OF 4 σ DEVIATIONS OF ELUM PER 20 RUNS



Conclusions

1) Evidence for depolarization during store.
Much more in Blue Ring. (5% per hour)

2) Evidence that Analyzing Power of CNI polarimeter
is larger at Flattop (100 GeV)
than at Injection energy (24 GeV)
Could be as much as 20% larger.

3) Evidence that there are Systematic Errors
in a CNI measurement
(Luminosity Asymmetry)
far outside statistical expectations.

These occur over all running times.

These could also be present in the Physics Asymmetry
at the 20% level.