News From Arizona

Selected Recent Results from RHIC

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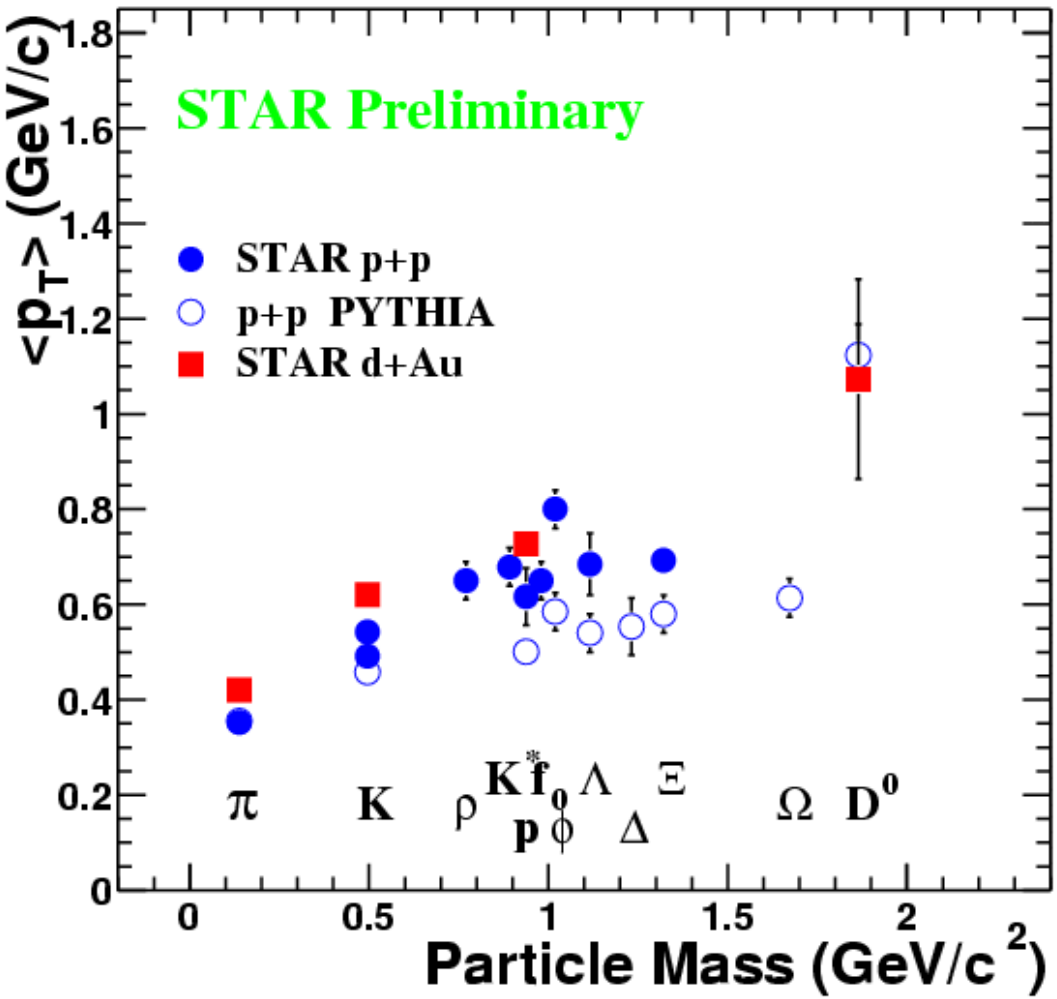
BNL

D^0 Mean Transverse Momentum



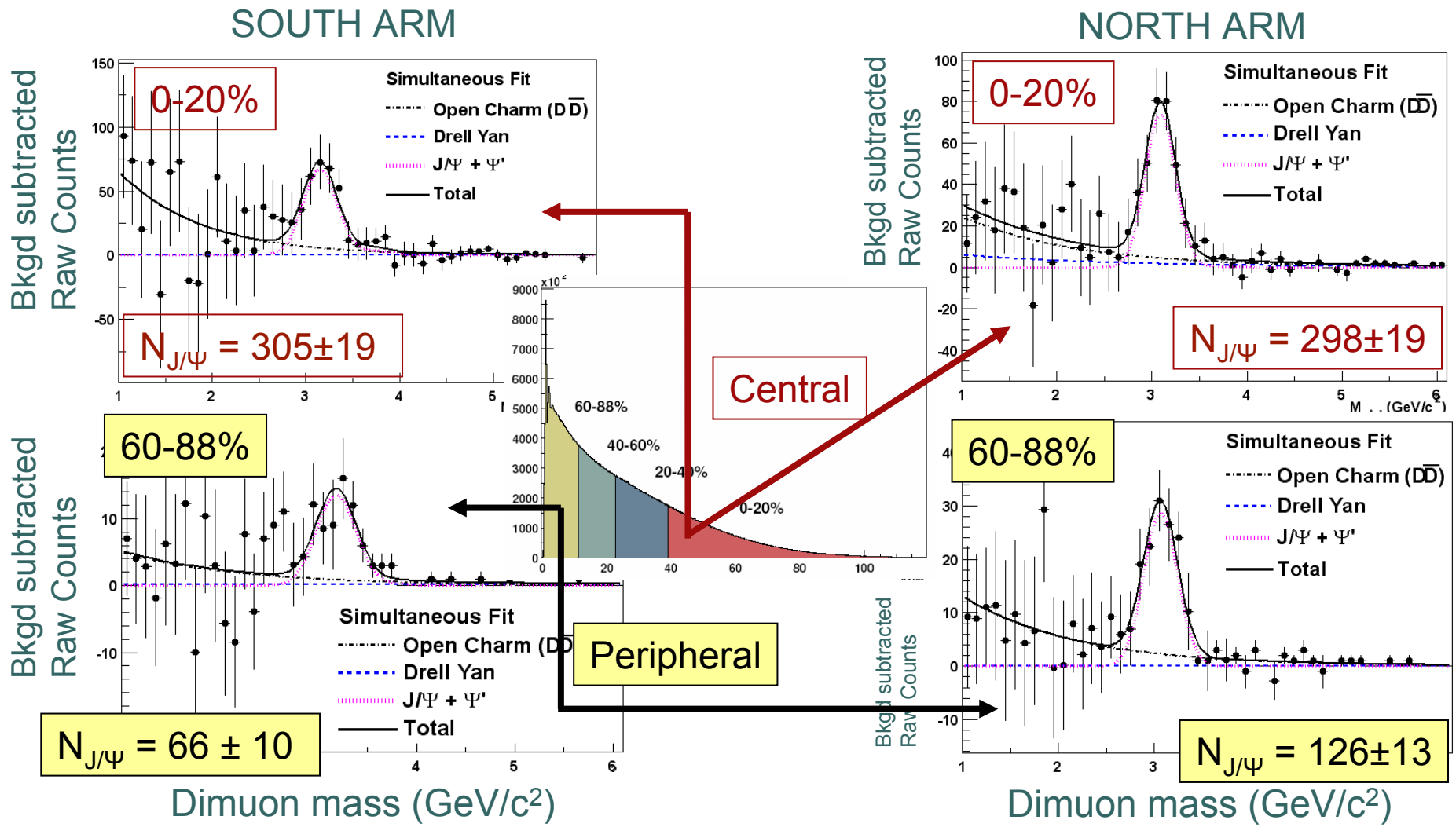
- $\langle p_T \rangle$ = 1.073 ± 0.170 (stat.) ± 0.121 (sys.) GeV/c
- Relatively large mean p_T for D^0 in both p+p pythia calculations and d+Au measurements
- D^0 might be produced from gluon fusion

J/Ψ->μ+μ- in d+Au Collisions

PHENIX Centrality selected raw dimuon mass distributions

Signal to background and fitting of all contributions are currently under study

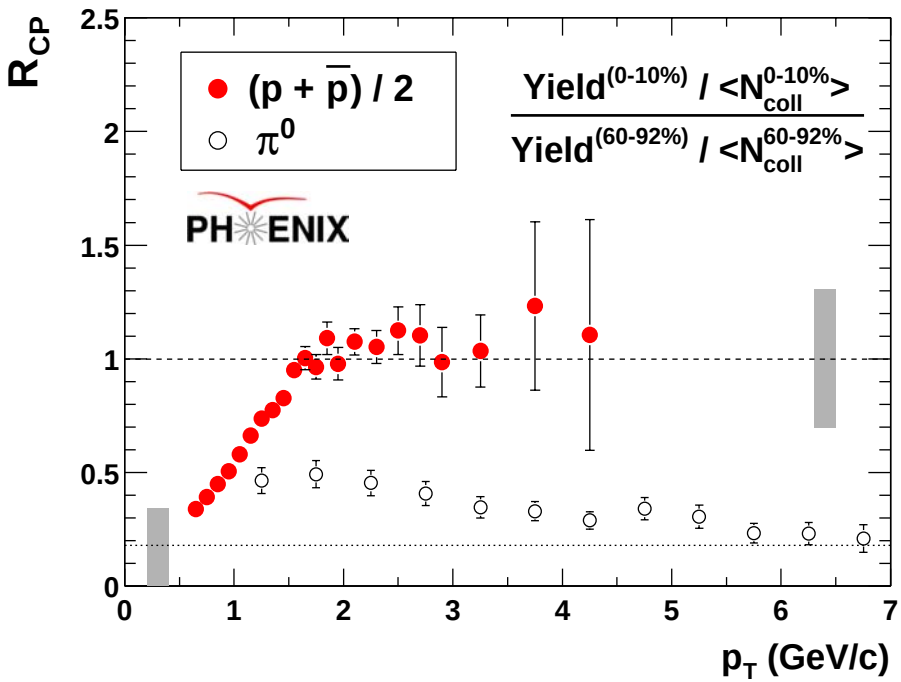
Not corrected for efficiency and acceptance

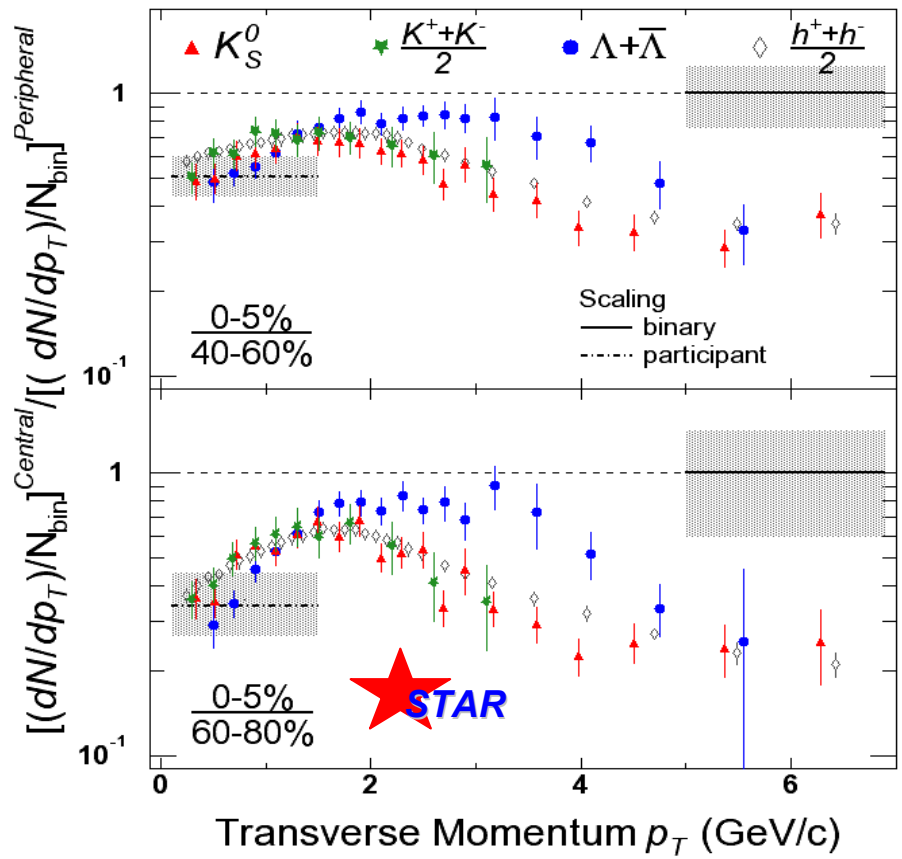


Baryons vs. mesons

STAR: nucl-ex/0306007

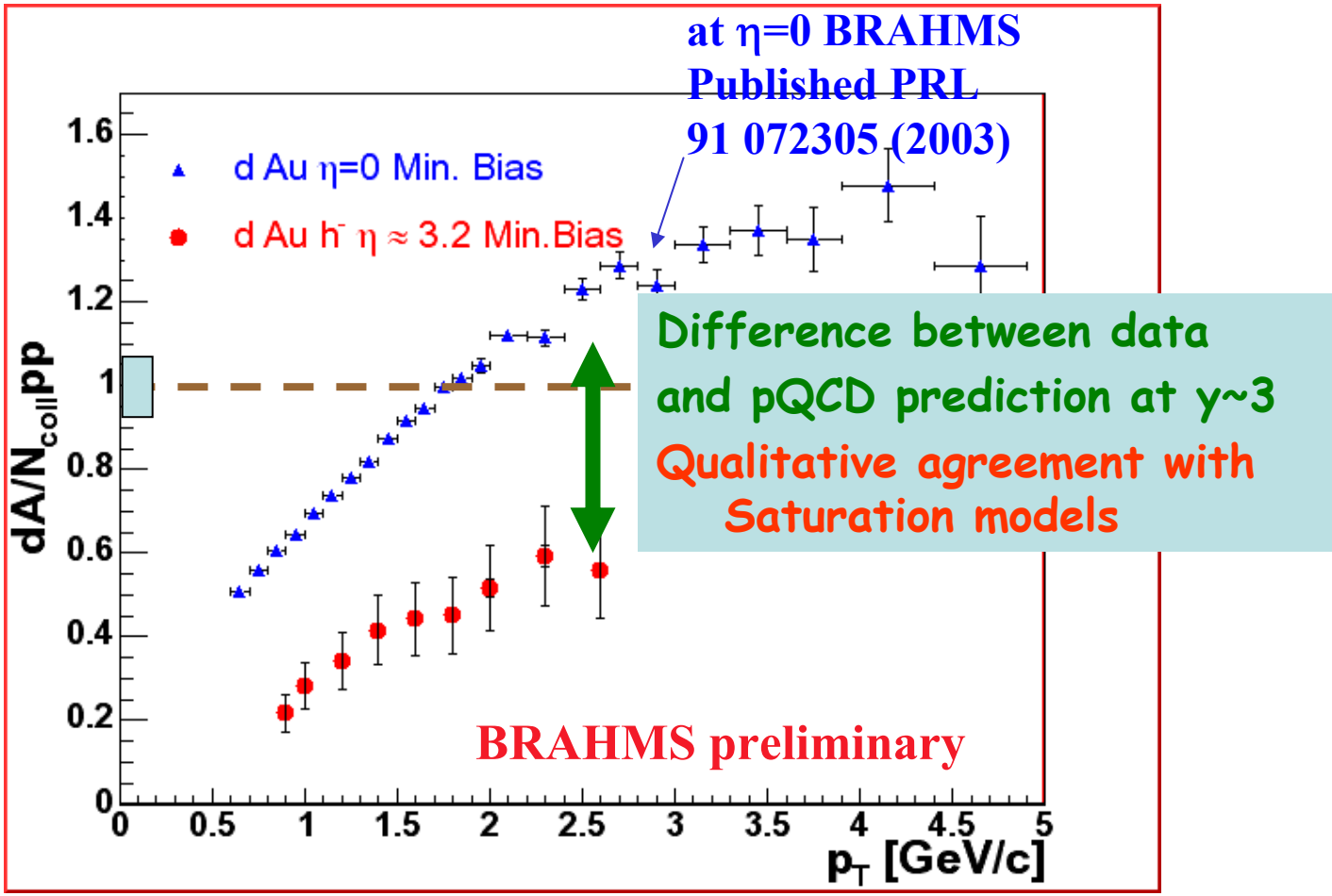
PHENIX: PRL 91, 172301





Significant proton-pion and lambda-kaon differences, but the "baryon enhancement" ends by $p_T \sim 5$-6 GeV/c

d-Au Nuclear Modification factor at η ~3.2
h^- for minimum-bias events



$$R_{dAu} = \frac{Yield_{dAu}}{\langle N_{coll} \rangle_{dAu} Yield_{pp}}$$

$\langle N_{coll} \rangle_{dAu}$ calculated for BRAHMS min-bias : 7.2

Summary

- Selected Latest results from RHIC
- Rich structure and data in p_T and y
- More data shown on high-p_T suppression due to final state effect at y~0
- Universal attenuation at higher-p_T (>~6GeV/c)?
- Is the initial state effects enhanced and seen at forward?
- Exciting rare probe physic to come