

PHENIX publications

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for PHENIX Collaboration

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Recent highlights and publication status

PHENIX papers since PAC2023

PRC110,044901(2024)

Jet modification via $\pi^0 - h$ correlations in AuAu

PRC109,054910 (2024)

PID hadrons in pAl, $^3\text{He}+\text{Au}$, Cu+Au

PRC109,044912 (2024)

Direct photons in Au+Au 200 GeV

PRC109,044907 (2024)

R_{AA} of $b \rightarrow e$ and $c \rightarrow e$

PRD108,072016 (2023)

A_N of charged hadrons in p+p and p+A

arXiv:2407.08586

centrality dependence of Levy HBT in AuAu

arXiv:2303.12899

Suppression of high p_T π^0 relative to direct photon in d+Au

arXiv:2409.12756

v_2 of forward J/Psi

arXiv:2409.12715

v_2 of forward Heavy Flavor muons

arXiv:2409.03728

J/Psi and Psi(2S) yield vs Nch in pp

arXiv:2408.11144

pp jet cross section and substructure at 200 GeV

arXiv:1805.04066

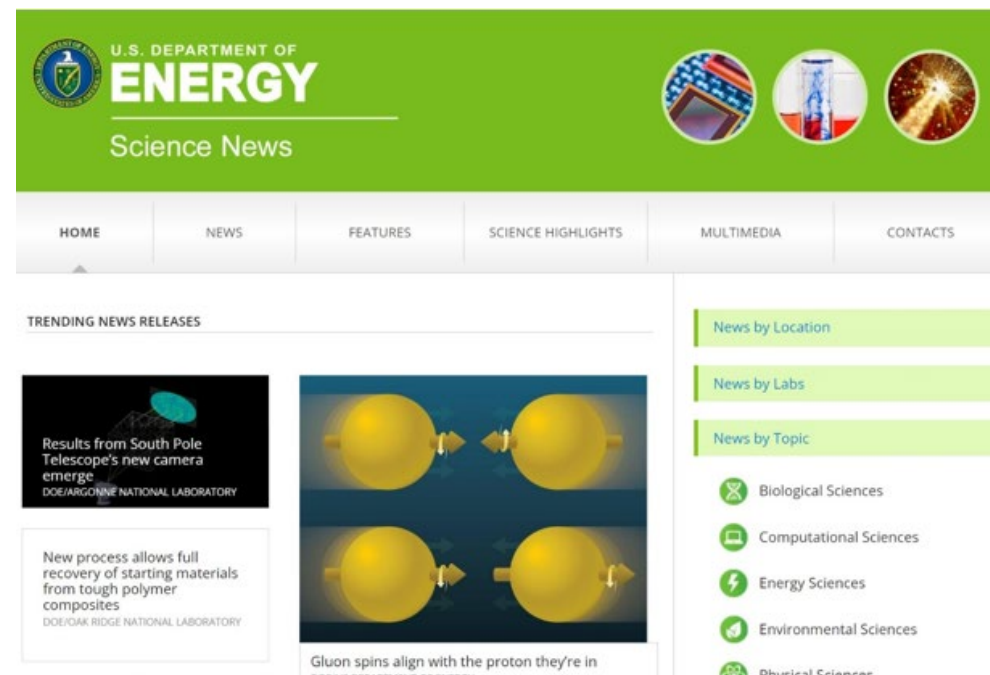
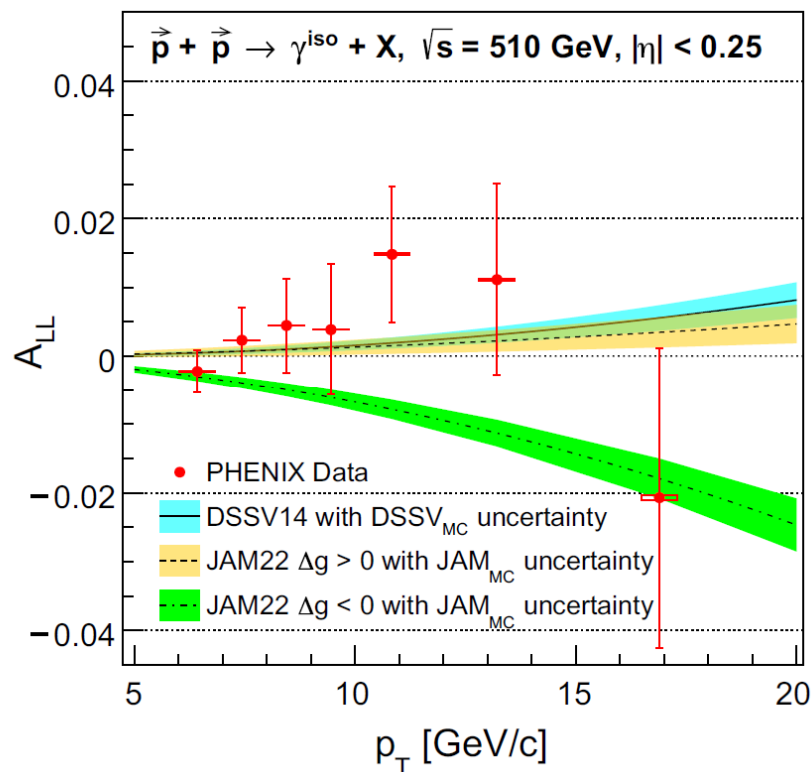
$\mu\mu, e\mu, ee$ correlations in $p + p$ 200 GeV

5 published, 2 accepted, and 5 papers in Journal review

Direct photon A_{LL}

PHYSICAL REVIEW LETTERS **130**, 251901 (2023)

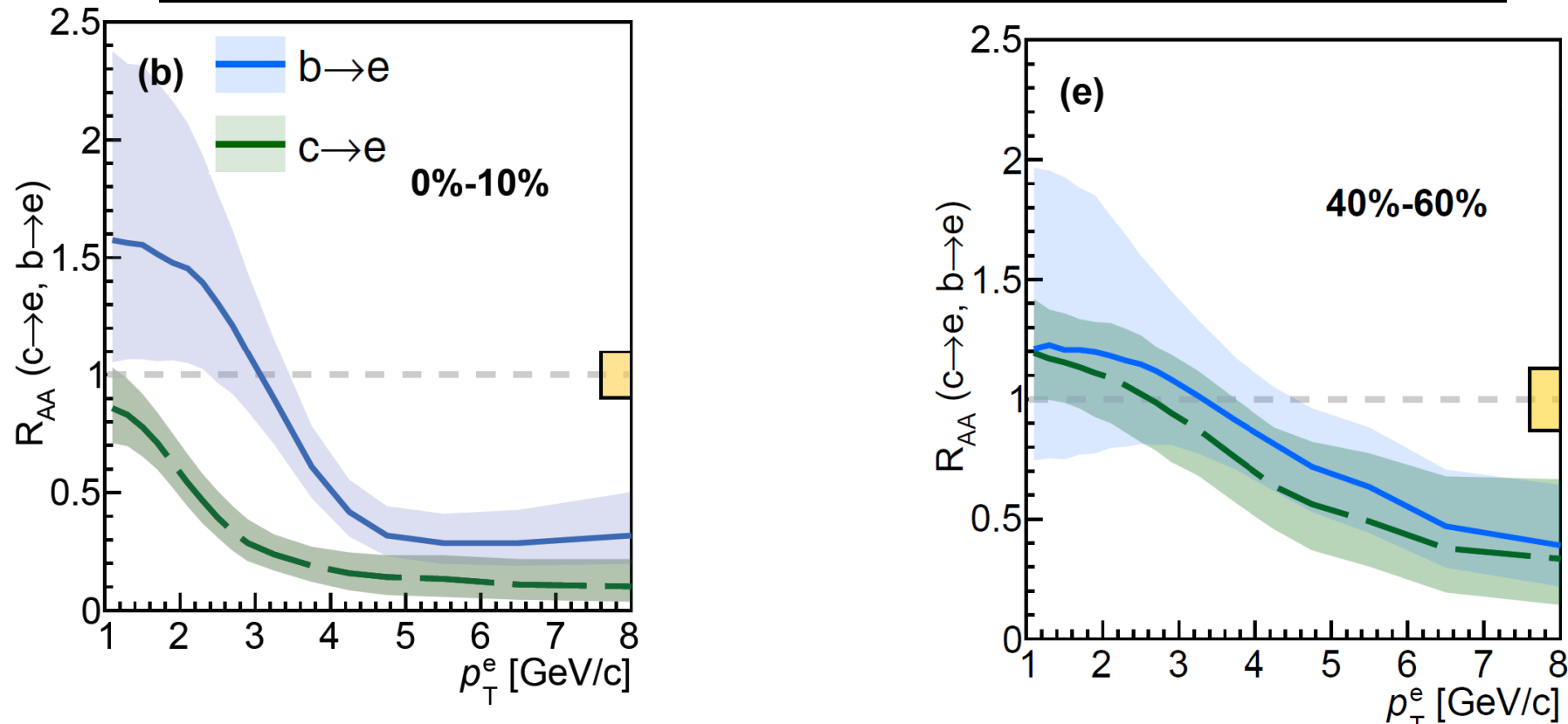
Measurement of Direct-Photon Cross Section and Double-Helicity Asymmetry at $\sqrt{s} = 510$ GeV in $\vec{p} + \vec{p}$ Collisions



- Determined that the gluon polarization is positive
- This is one of the original goals of RHIC spin physics program
- BNL and RIKEN news release; DOE science highlight

R_{AA} of $b \rightarrow e$ and $c \rightarrow e$

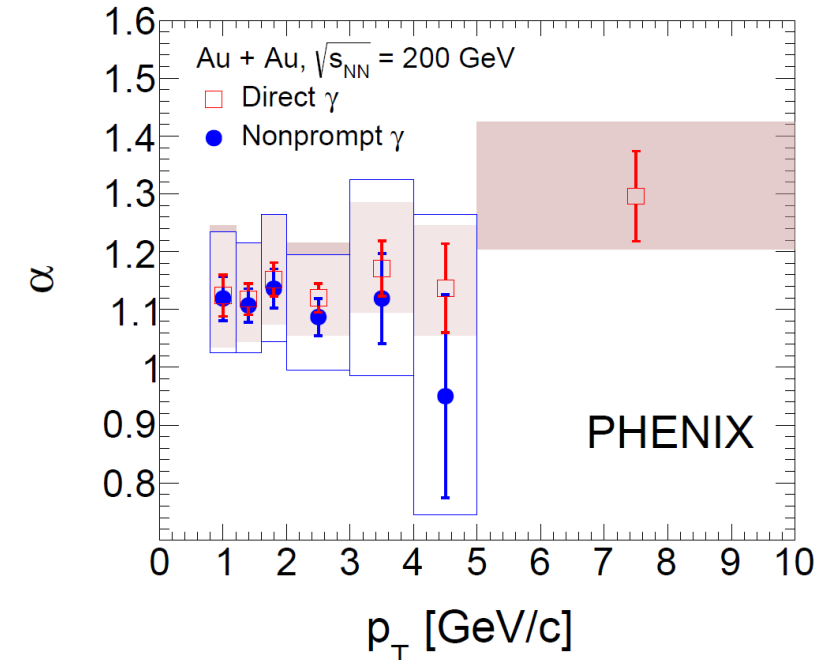
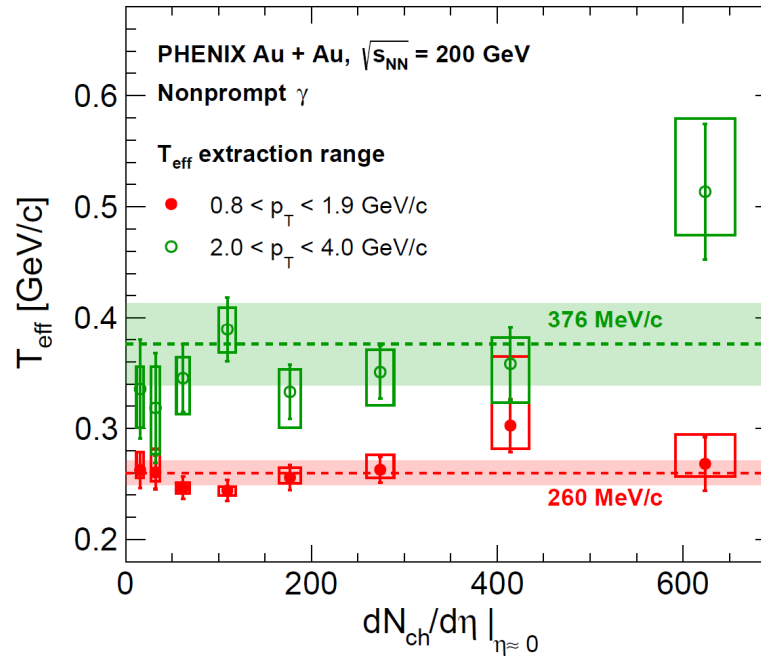
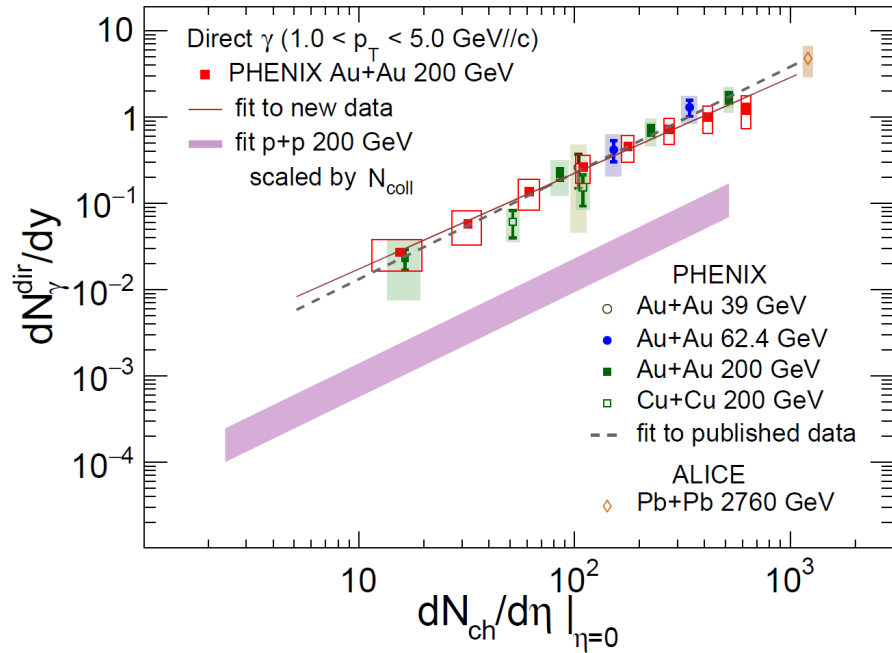
PHYSICAL REVIEW C **109**, 044907 (2024)



- R_{AA} of $b \rightarrow e$ and $c \rightarrow e$ at midrapidity from 20B Au+Au data
- Clear difference of charm and bottom suppression is seen

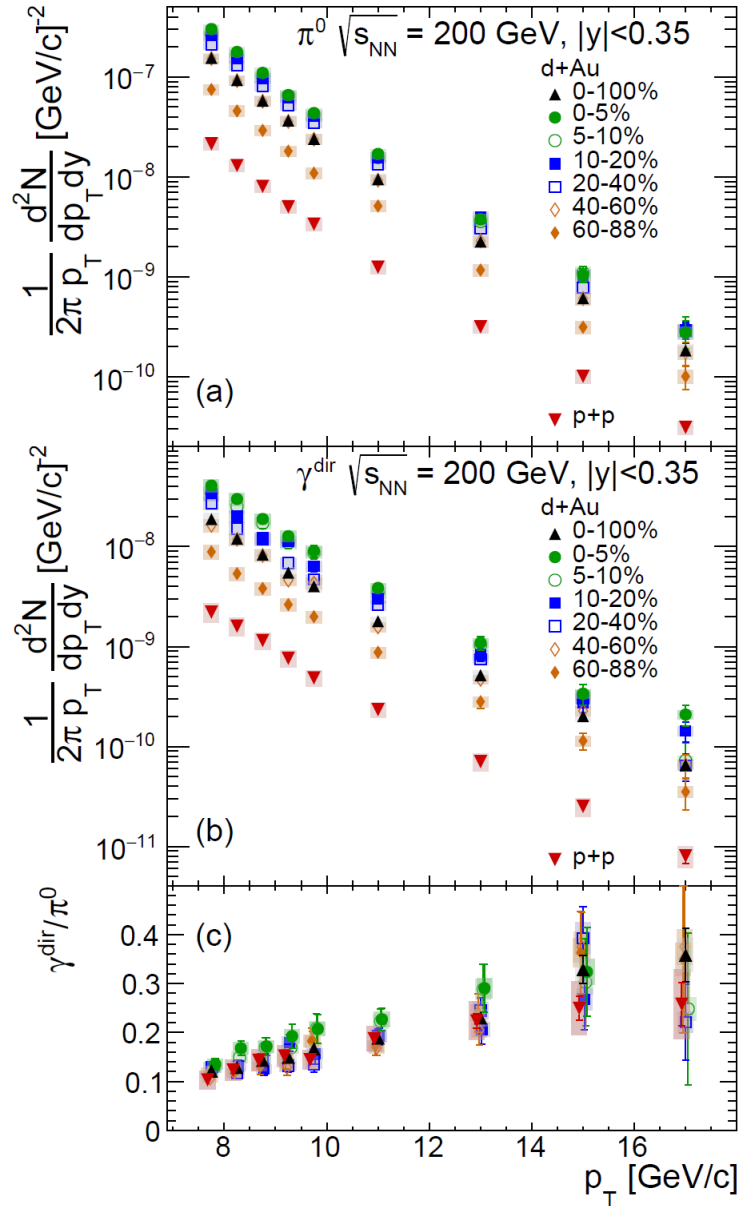
Non-prompt direct photons in Au+Au

PHYSICAL REVIEW C **109**, 044912 (2024)



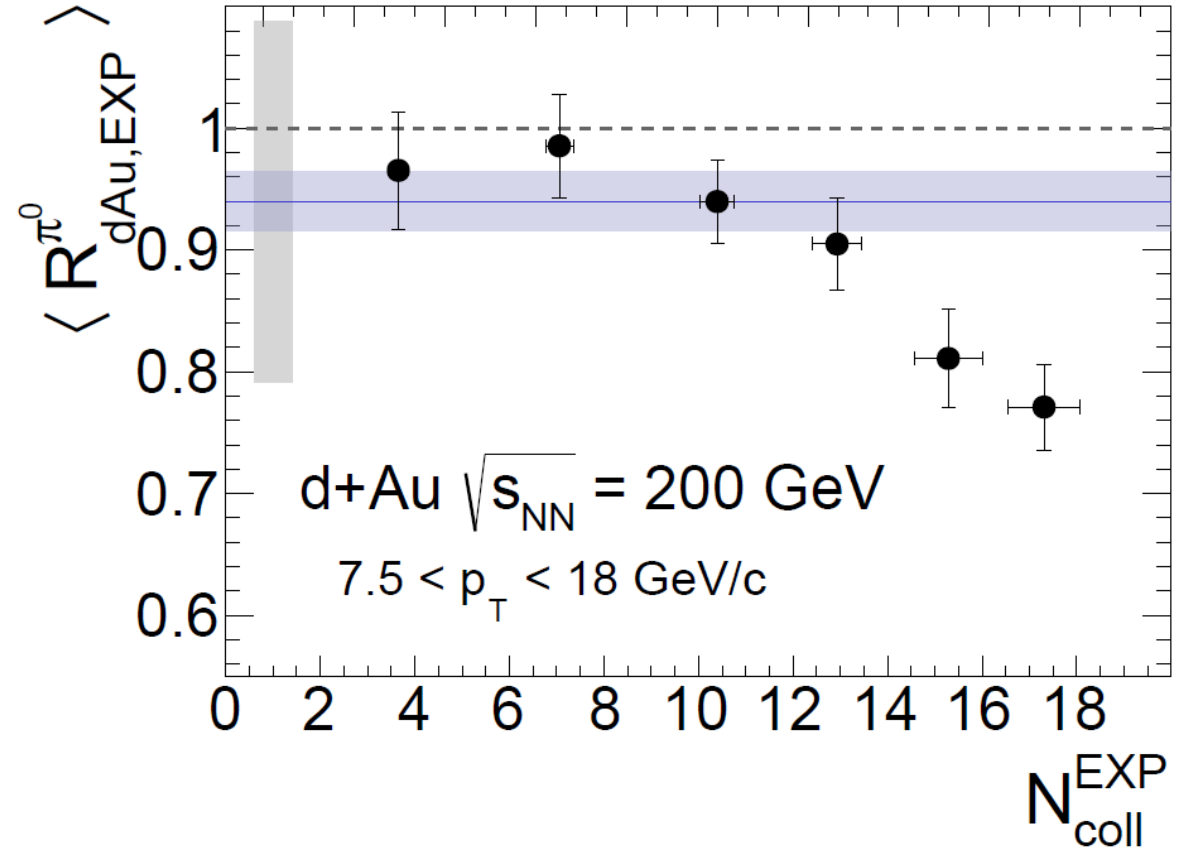
- High statistics direct photon measurement in Au+Au in 2014 run
- Non-prompt component of direct photons is extracted
- Effective temperature depends on p_T range
- Photon yield $\simeq (dN/d\eta)^\alpha$ with $\alpha = 1.12 \pm 0.06 \pm 0.12$

π^0 and direct photon in d+Au



PRL accepted

arXiv:2303.12899



- π^0 is suppressed relative to direct photon in central d+Au
- Evidence for π^0 suppression in most central d+Au

PHENIX publications

- **225 physics papers published/accepted**

- Phys. Rev. Lett. 77
- Phys. Rev. C 95
- Phys. Rev. D 47
- Nature Physics 1
- Phys. Letter B 4
- Nucl. Phys. A 1

- **Total citation: ~36000**

- Topcite 1000+ 3
- 500-1000 7
- 250-500 22
- 100-250 67
- 50-100 47

PHENIX White Paper: 3701 cites

Jet quenching discovery: 1237 cites

PID hadron in AuAu: 1021 cites

Nature P paper: 317 citations

146 physics papers in topcite 50+

(167 if proceedings and detector papers are included)

Published PHENIX papers in each year

