

Direct Photon Elliptic Flow

ALICE, Phys. Lett. B 754
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Direct (thermal) photons

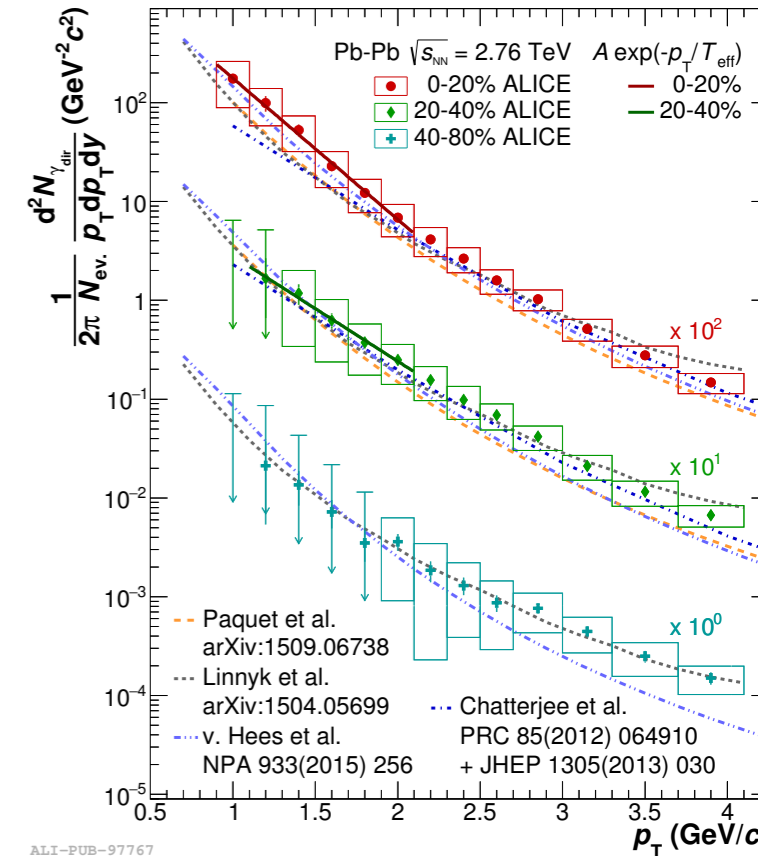
- Penetrating probe: early thermal properties of QGP
- Challenging measurement

Direct photon puzzle at RHIC

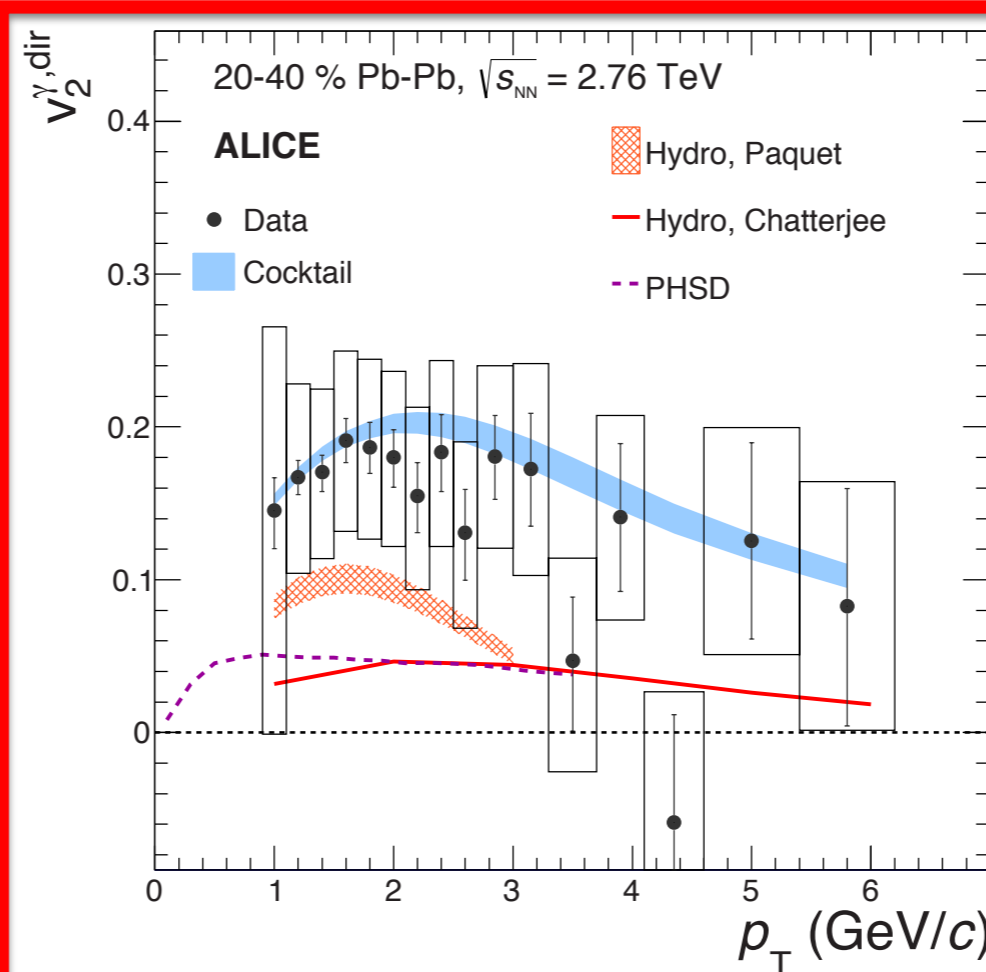
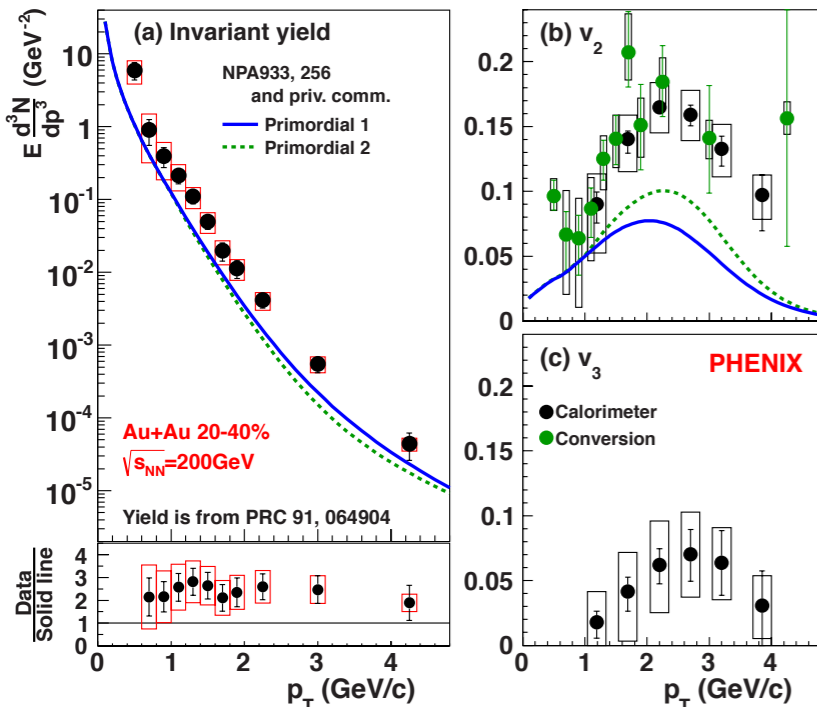
- Large yield + large anisotropy
- Challenging for theory:
 - Large yield favours early emission
 - Large anisotropy favours late emission

ALICE results:

- Measurement more difficult compared to RHIC: smaller S/B
- Direct photon yields published in 2016
- Reasonable agreement with theory



H.van Hees, M. He, R. Rapp,
Nucl. Phys. A 933 (2015) 256



New ALICE result:

- Significant direct photon v_2
 - Contribution from UU/Nikhef (Mike Sas)
 - Paper in collaboration round
- ## Direct photon puzzle at LHC?
- Some tension with theory, but not very significant
 - first measurement (Run 1), limited in statistics/systematics, will need Run 2 or beyond