

Flow and Correlations

Chapter

List of figures for chapter

Alex Dobrin(Alice)

Wei Li (CMS)

Bjoern Schenke (Theory)

Stefan Floerchinger (Theory)

Soumya Mohapatra (ATLAS)

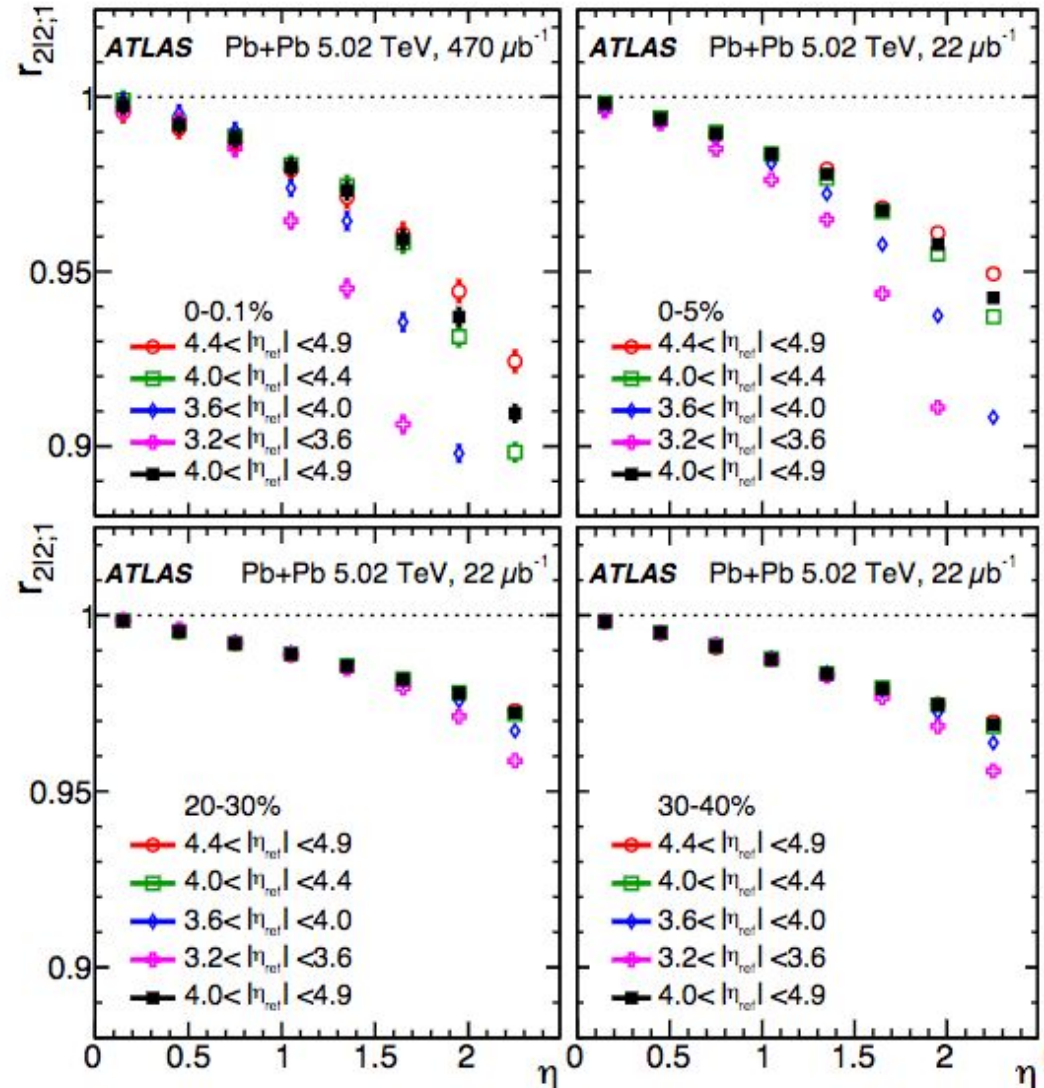
List of Figures-1 (ATLAS)

- Plot on flow decorrelation:

$$r_{n|n;1}(\eta) = \frac{\langle \mathbf{q}_n(-\eta) \mathbf{q}_n^*(\eta_{\text{ref}}) \rangle}{\langle \mathbf{q}_n(\eta) \mathbf{q}_n^*(\eta_{\text{ref}}) \rangle}$$

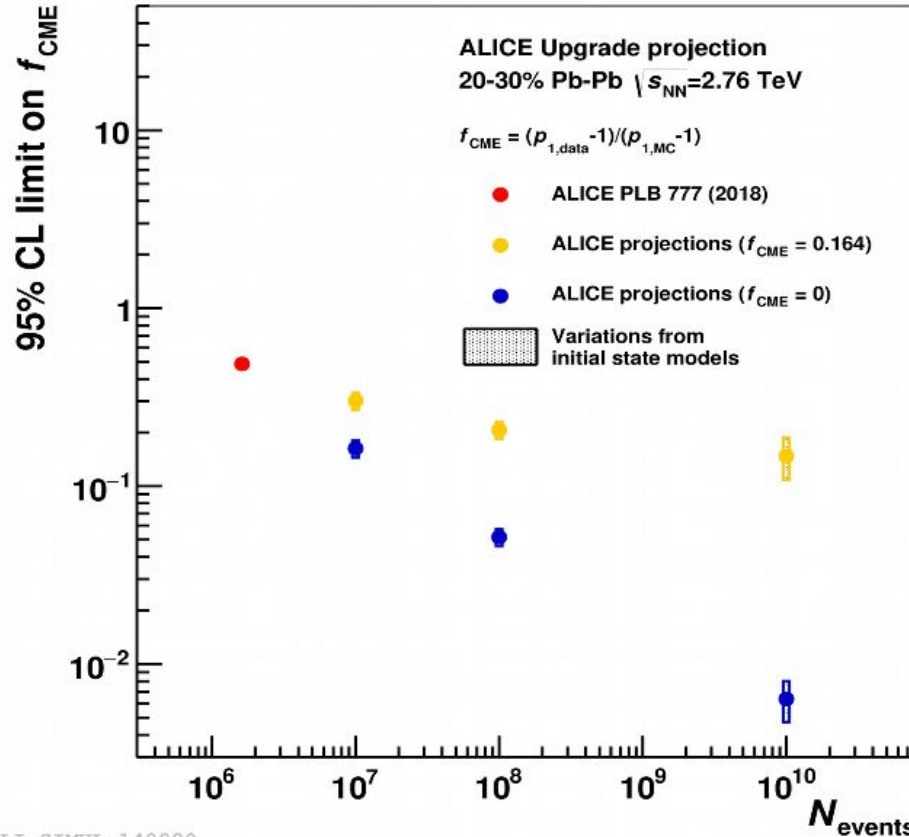
- Main improvement will be due to increase in tracking acceptance to ± 4 units in eta

- No final plot yet, projection plot is still under ATLAS approval



List of Figures-3 (ALICE)

CME fraction: run-1 results and run 3/4 expectation



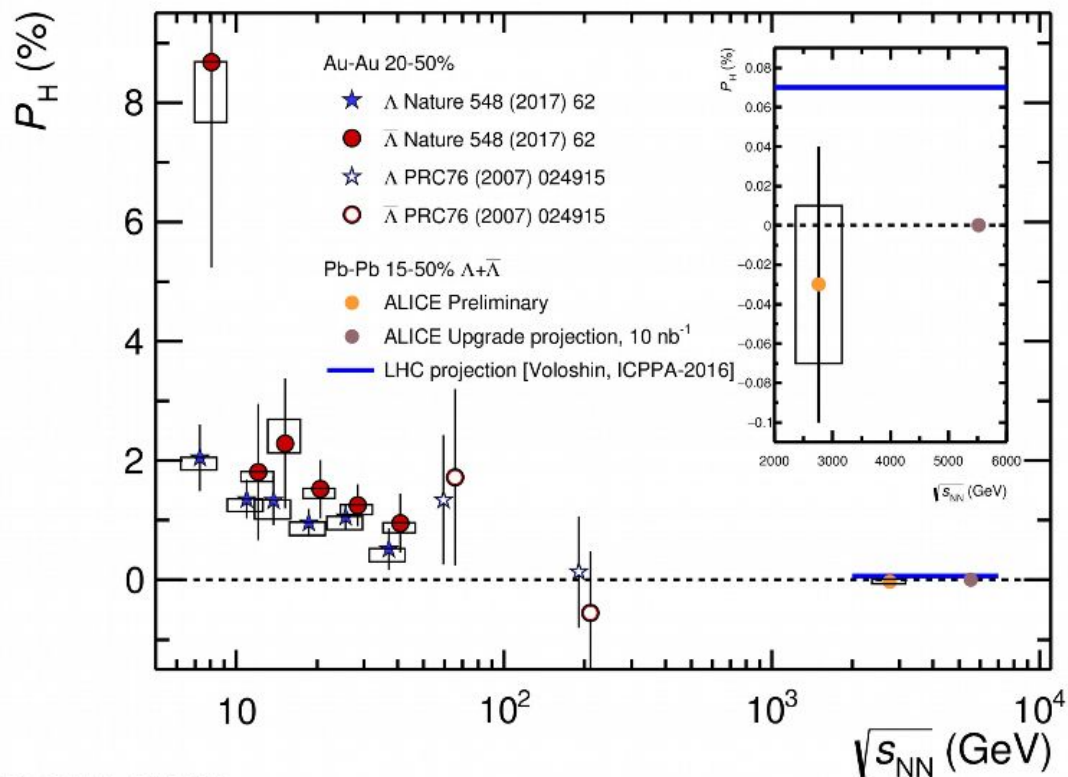
$$\gamma_{\alpha\beta} \equiv \langle \cos(\varphi_{\alpha} + \varphi_{\beta} - 2\Psi_{RP}) \rangle$$

$$f_{CME} = \frac{(\gamma_{opp} - \gamma_{same})^{CME}}{(\gamma_{opp} - \gamma_{same})^{CME} + (\gamma_{opp} - \gamma_{same})^{Bkg}}$$

- Run 1: upper limit for the CME fraction of 26-33% at 95% CL for 10-50%
- Run 3/4:
 - Data extrapolation: project statistical error of the current CL@95%
 - Expecting to put stringent constraints for the CME contribution to γ_{ab}

List of Figures-4 (ALICE)

Global polarization of Λ hyperons: run 1 result and run 3/4 expectation



$$P_{\Lambda, \bar{\Lambda}} = \frac{8}{\pi \alpha_{\Lambda, \bar{\Lambda}}} \times \frac{\langle \sin(\phi_p^* - \Psi_{RP}) \rangle}{R_{RP}}$$

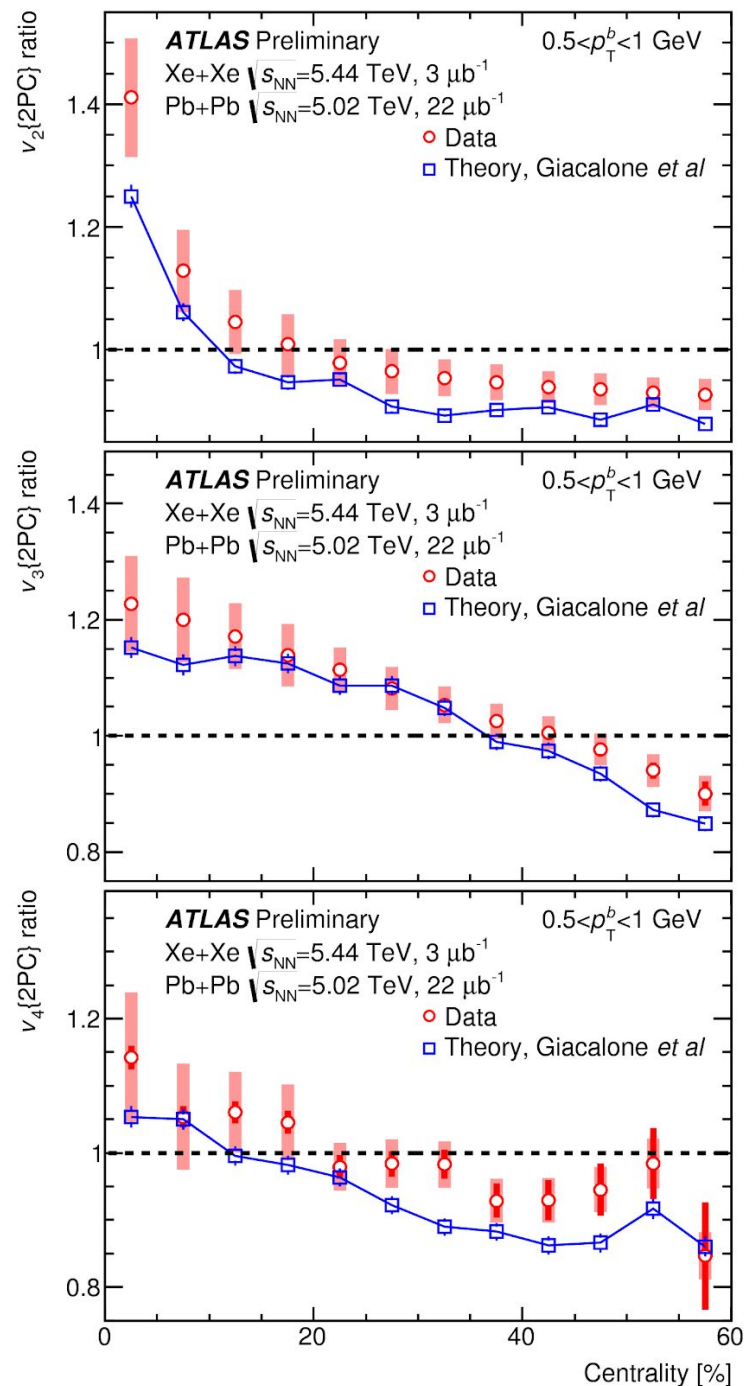
ALI-SIMUL-140084

- P_H @ run 1: consistent with zero within uncertainties
 - 1σ significance for combined Λ and anti- Λ results
- P_H @ run 3/4: $>5\sigma$ significance for combined Λ and anti- Λ results

List of Figures-5 (Theory)

v_n Projections for light ions (ArAr)

Requested from authors of arXiv:1711.08499



Next Steps

- Expect to get plots from ATLAS and CMS in the coming 2 Weeks
- Stefan and Bjoern have begun working on the text of the chapter introduction
- Next chapter meeting on June 5th