

25th November 2021

Terzo incontro di fisica con ioni pesanti alle alte energie



Global properties from pp to AA

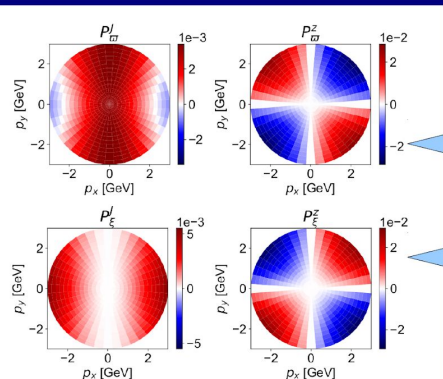
Polarisation and vorticity



Spin is becoming a crucial tool to investigate the physics of the QGP

New calculations

Based on the hydrodynamic code VHLLE (author I. Karpenko) tuned to reproduce Au-Au momentum spectra at RHIC top energy. Similar output with ECHO-QGP (main author G. Inghirami).



Thermal vorticity

Thermal shear Right pattern!



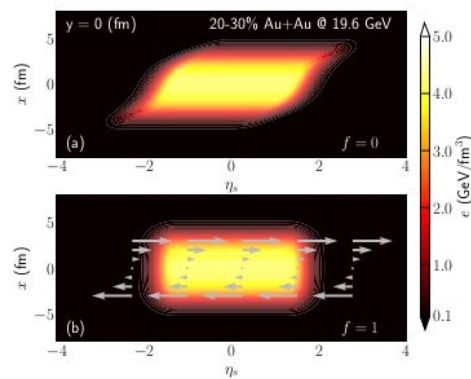
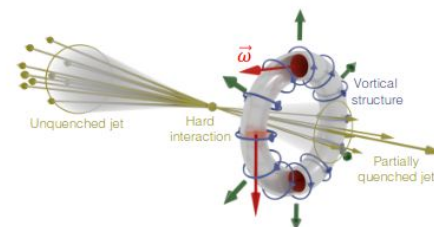
SUMMING UP



Not sufficient to restore the agreement between data and model

Calculations fully consistent with:
B. Fu, S. Liu, L. Pang, H. Song and Y. Yin,
Phys. Rev. Lett. 127 (2021) 14, 142301

Many new phenomenological predictions both at high and low energy

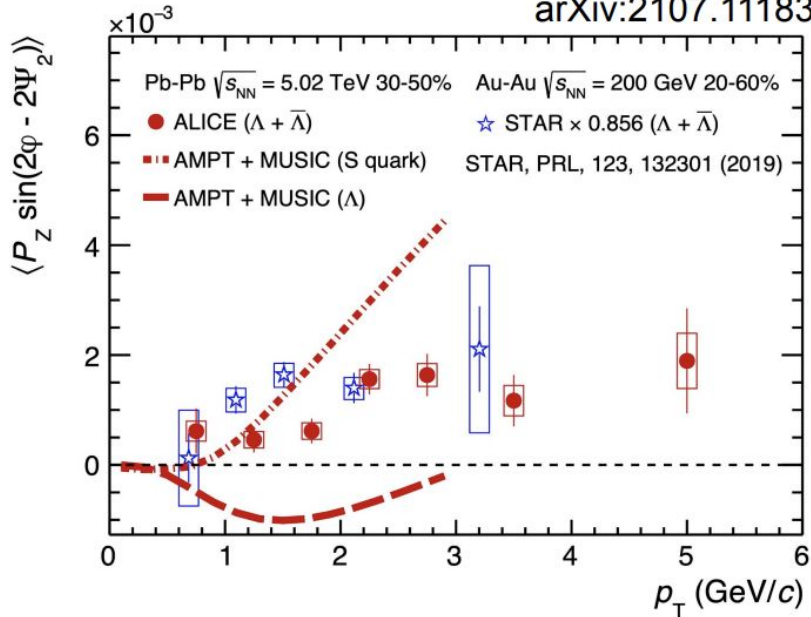




Longitudinal polarisation: what about calculations?

ALICE @ LHC

arXiv:2107.11183



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Further developments are work in progress!