

# Heavy Ions Summary

[Chun Shen - Tue. 16:30](#)

[Cristiane Jahnke - We. 10:00 \(ALICE\)](#)

[Andrey Sadovyeef - We. 12:00](#)

[Gian Michele Innocenti - Th. 17:00](#)

[Leif Lönnblad - Tue. 17:00](#)

[Giorgios Krinitiras - We. 10:30 \(CMS\)](#)

[João Barata - We. 12:15](#)

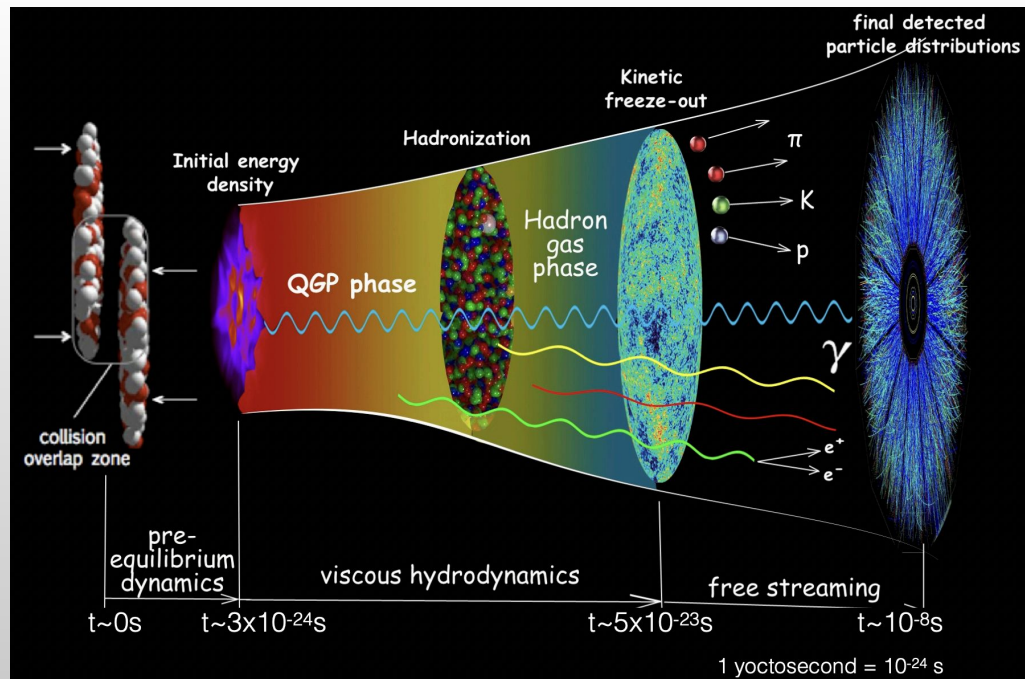
[Hengne Li - Th. 17:20](#)

[Yeonju Go - We. 11:00 \(ATLAS\)](#)

[Andre Govinda Stal - Th. 17:40](#)

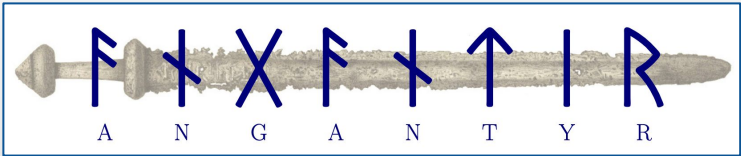
# Outline

- Medium
  - Modelling the medium
  - Flow
- Interactions with the medium
  - Jets
  - Heavy-flavor flow

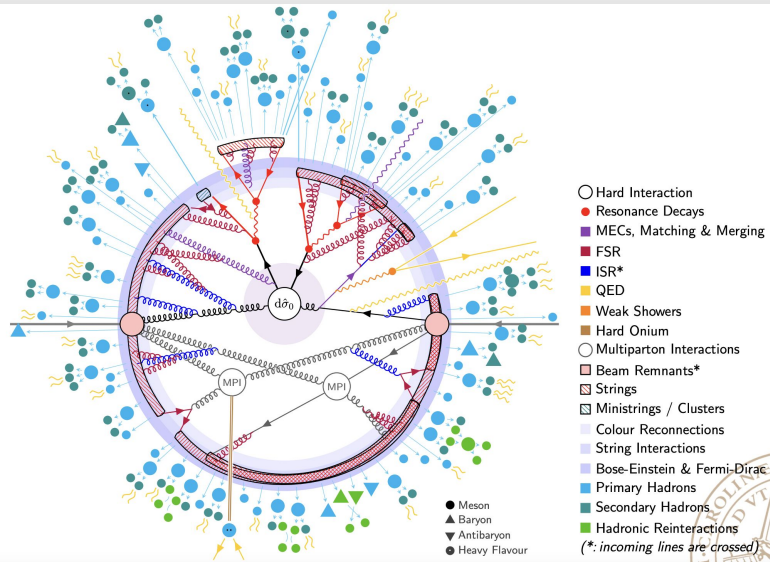
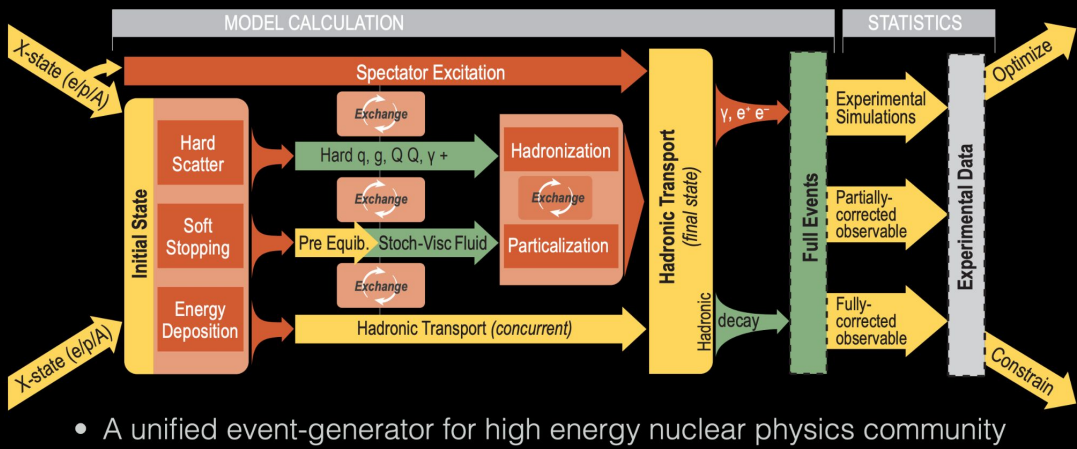


# The medium

# Modelling the medium

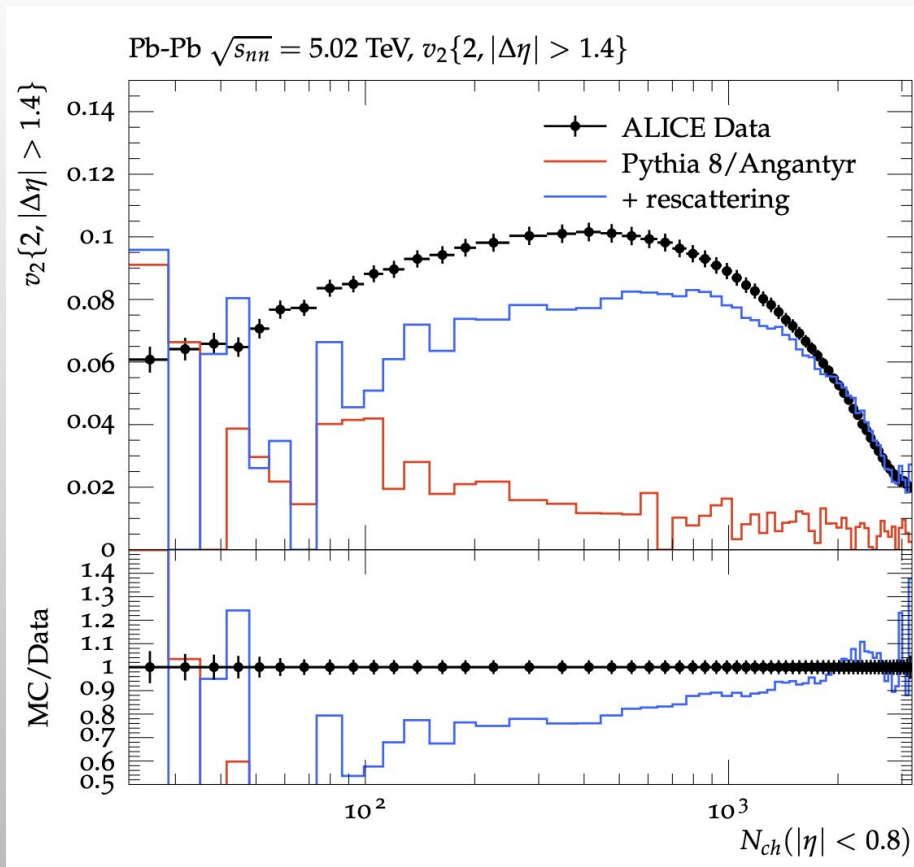
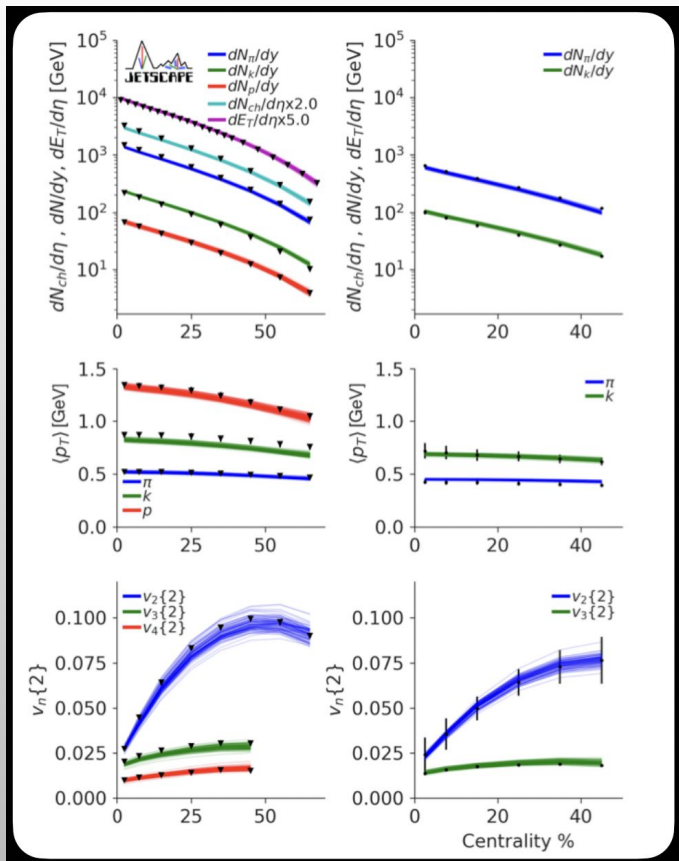


## THE XSCAPE PROJECT (2020 - 2024)

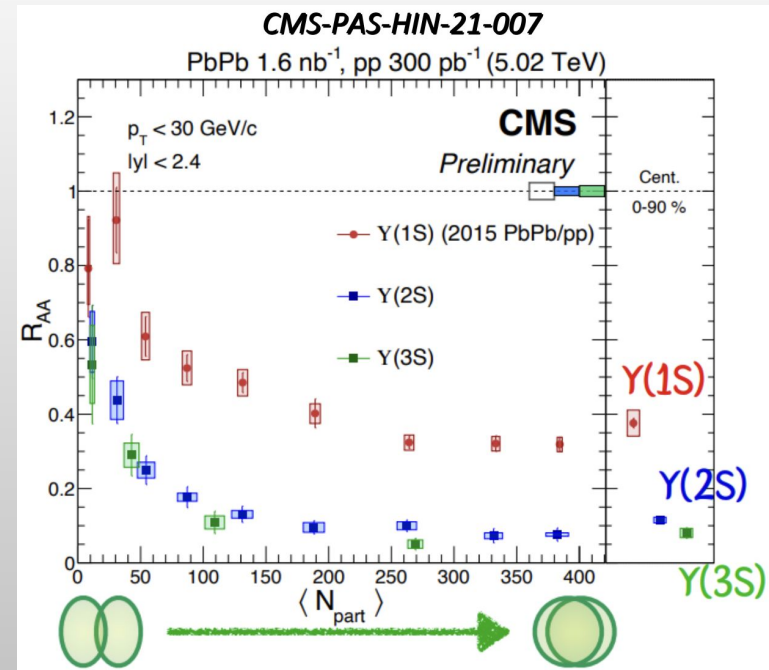
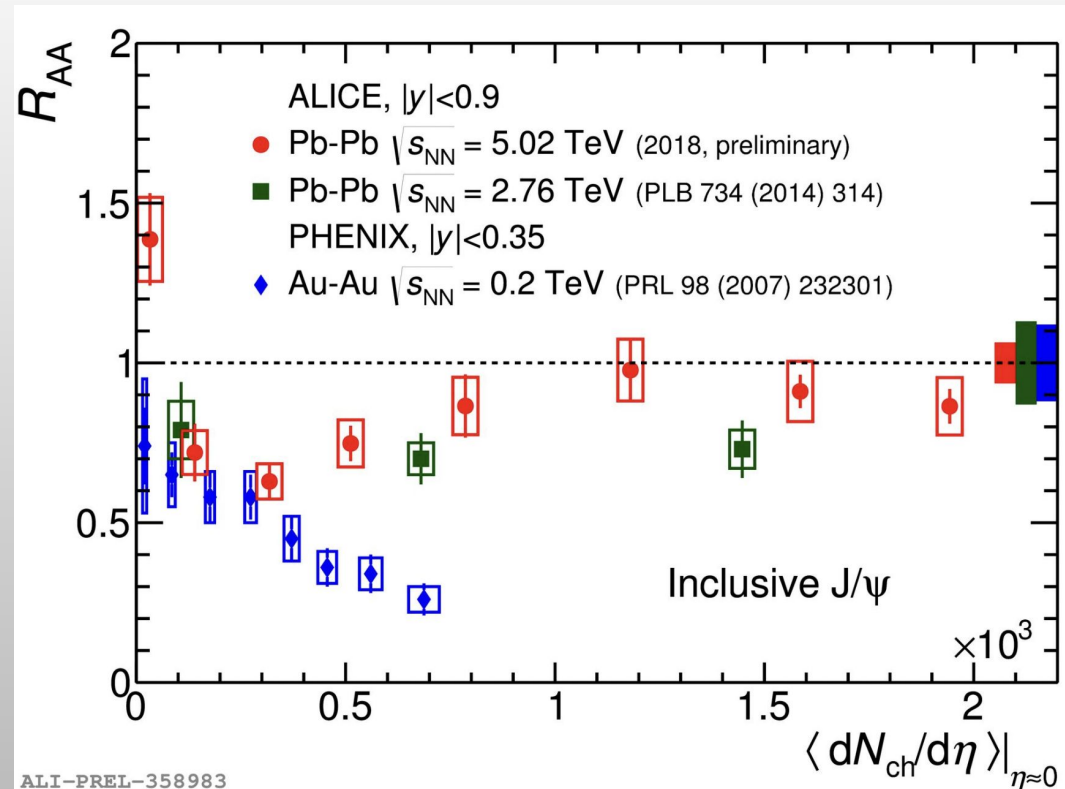


Chun Shen - Tue. 16:30

Leif Lönnblad - Tue. 17:00



# J/Ψ melts, but also recombines



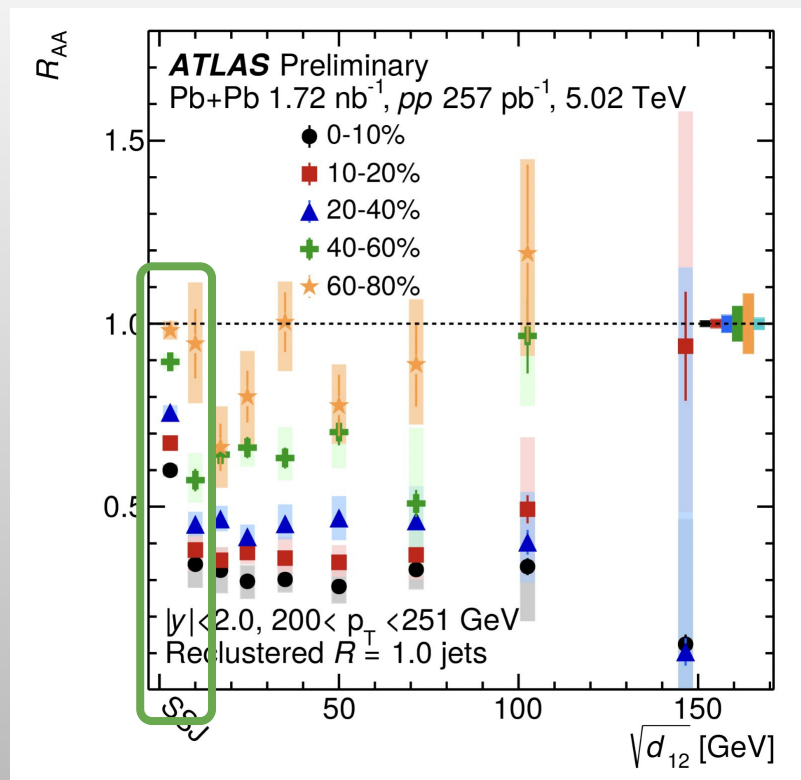
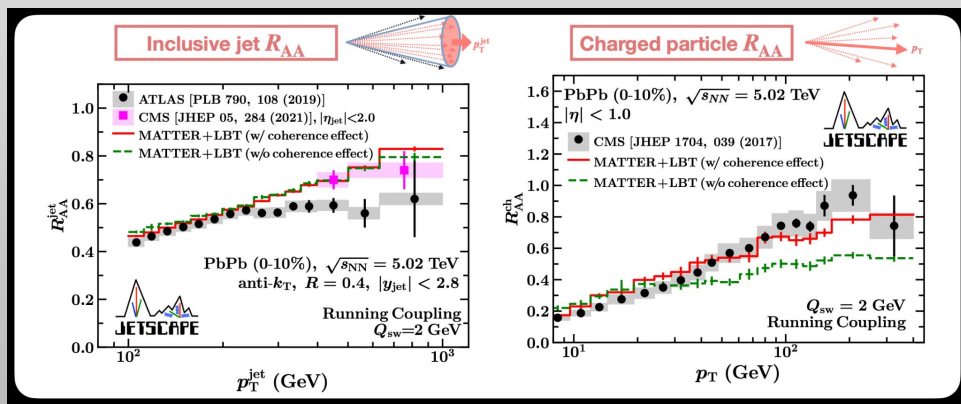
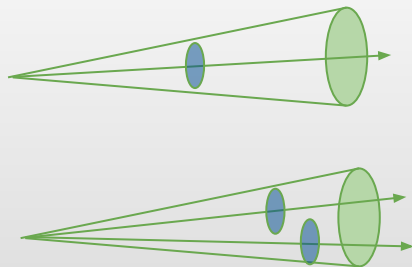
[Giorgios Kriniras - We. 10:30 \(CMS\)](#)

[Cristiane Jahnke - We. 10:00 \(ALICE\)](#)

Isobel Kolb  and Andreas Morsch  
13th International workshop on Multiple Partonic Interactions at the LHC

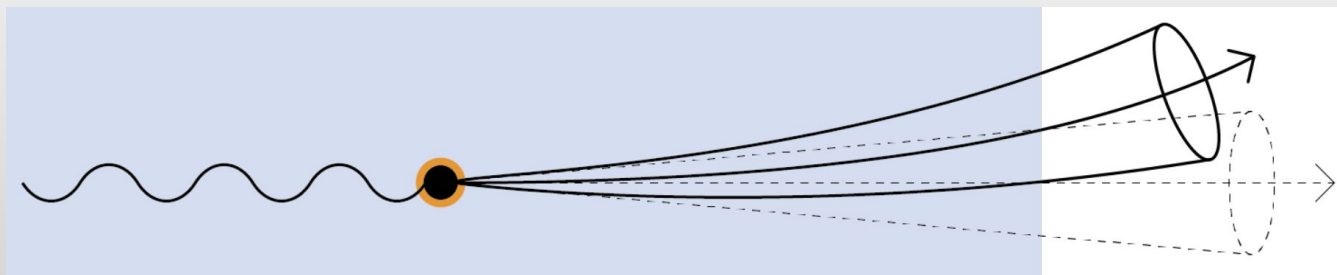
# Interactions with the medium

# Multiple interactions w/ medium $\rightarrow$ more suppressed





# Interactions w/ the medium “bend” the jet



Use jets to measure flow

[Andrey Sadovyeef - We. 12:00](#)

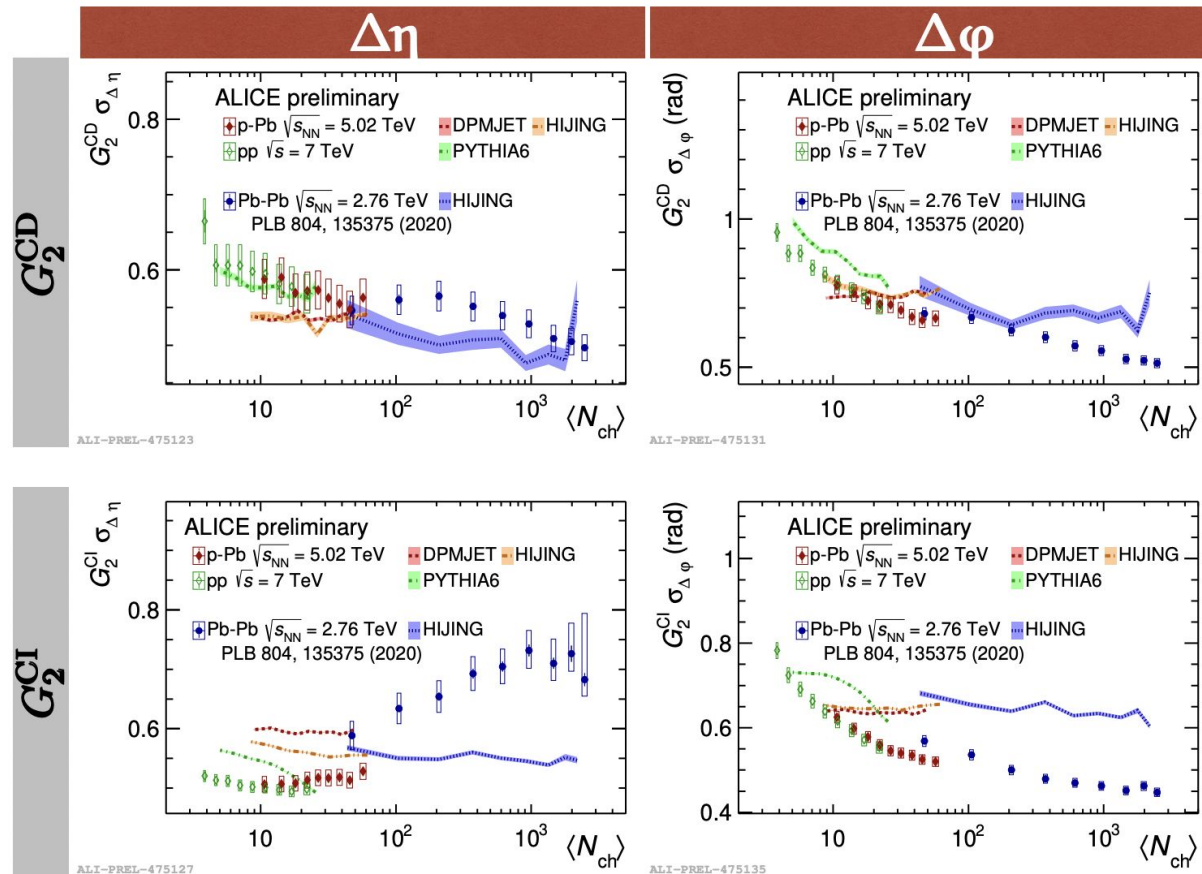
[João Barata - We. 12:15](#)



# Take-home messages

- Medium:
  - Hydrodynamics is very successful, but we are also starting to be able to give quantitative answers to the question: “How much of the HI data can you describe without a fluid?”
  - Two-particle transverse momentum correlations do not show a smooth cross-over from pp to pPb to PbPb. Why is that?
- Interactions with the medium:
  - Multi-pronged jets lose more energy
  - Can compute: bending of a jet due to flow
  - High-pT J/Ψ flows - path-length dependent energy-loss

# Small systems



Two-particle transverse momentum correlations

Evidence for radial flow, but not for viscous effects