

Small systems are very important

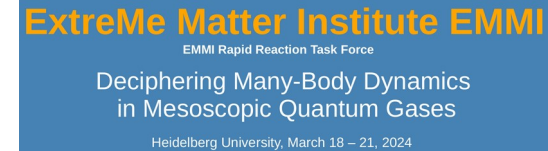
talks in the morning

Also, strong interdisciplinary aspect

many-body/nuclear structure talks by Benjamin Bally, Bingnan Lu, Taka Otsuka, Dean Lee

ultra-cold atoms Brandstetter et al., 2308.09699, to appear in Nature Physics

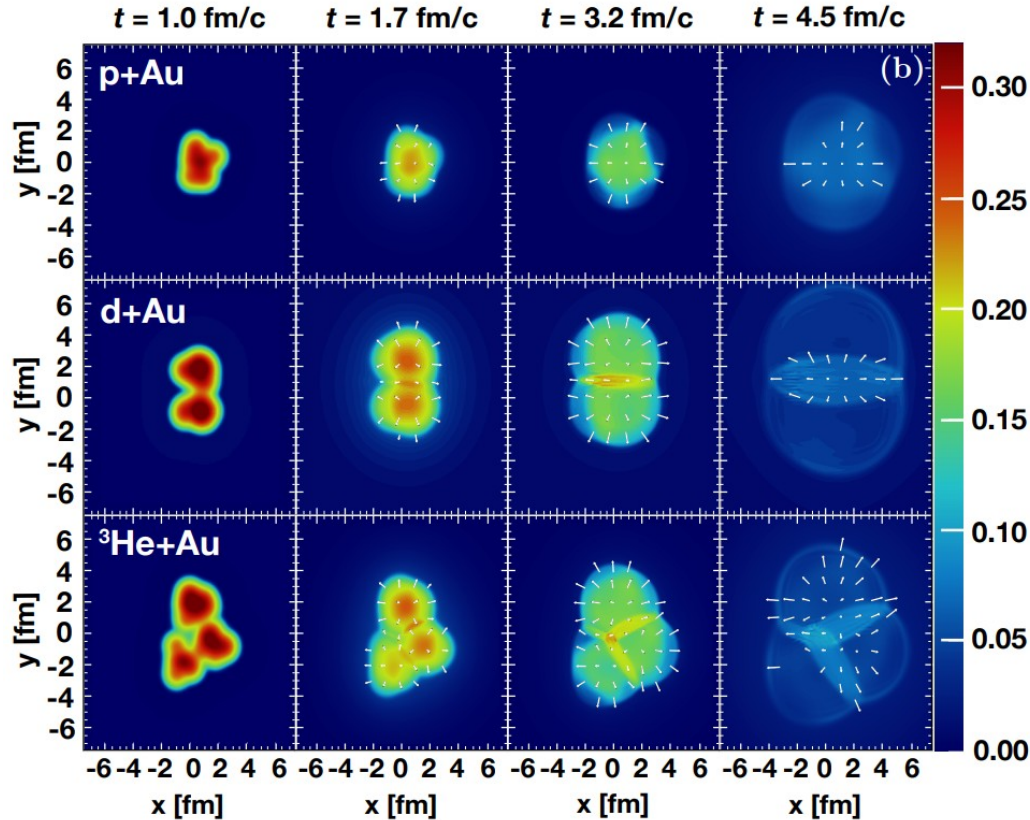
others? e.g. high-energy proton structure



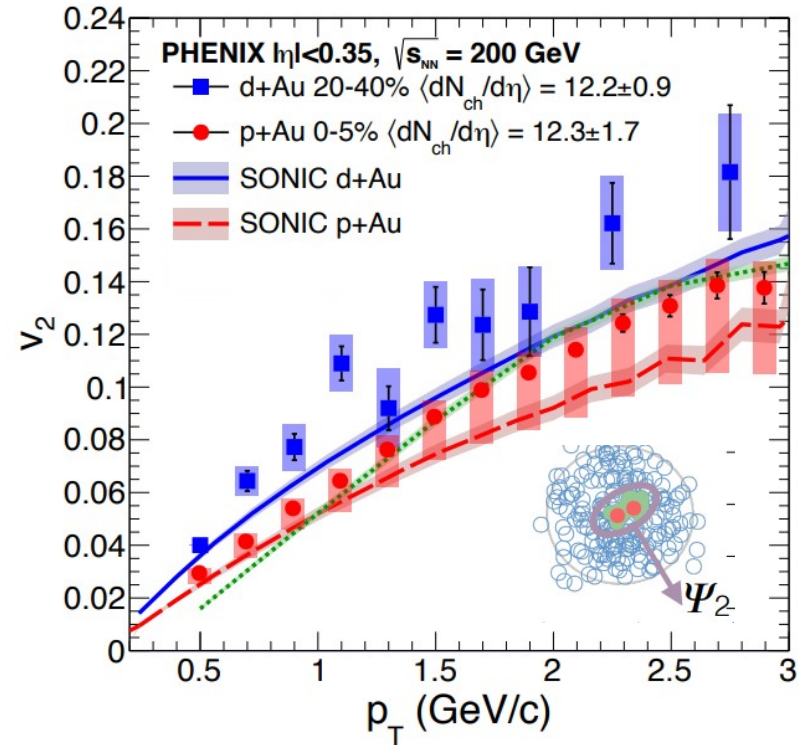
We want to keep studying small systems

How do we turn this into a quantitative field?

So far, strong qualitative indication of “hydrodynamic behavior”

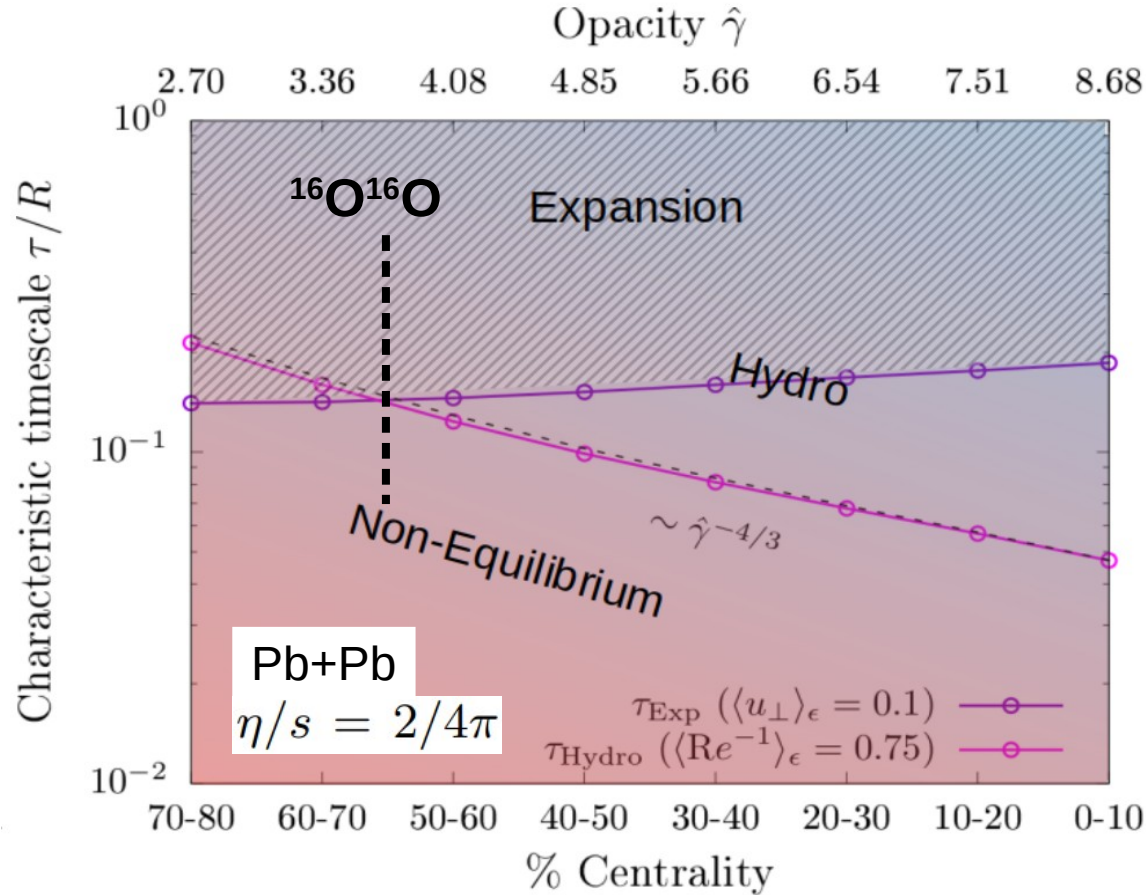


$$v_2\{2\}_{d^{197}\text{Au}} > v_2\{2\}_{p^{197}\text{Au}}$$



[PHENIX Collaboration, Nature Phys. **15** (2019) 3, 214-220]
 [STAR collaboration, PRL **130** (2023) 242301]

Detailed studies of transition from kinetic theory to hydrodynamics are available

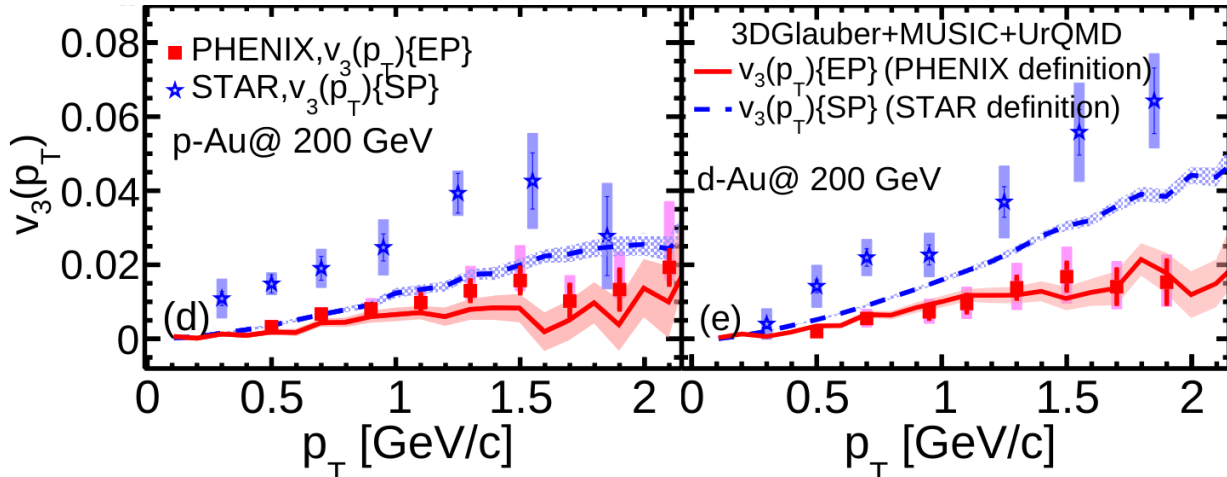


[Ambrus, Schlichting, Werthmann,
PRD **105** (2022) 1, 014031
PRD **107** (2023) 9, 094013
PRL **130** (2023) 15, 152301]

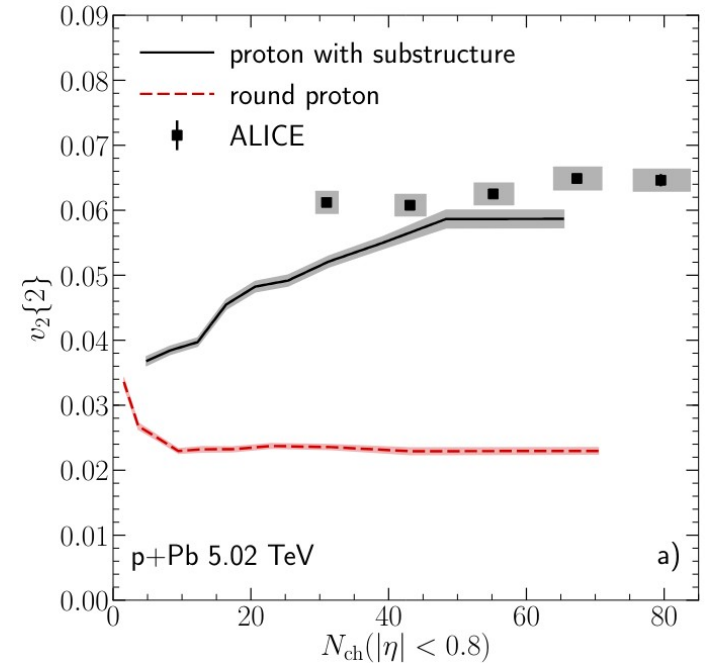
Many years later ... Quantitative understanding of data?

Full 3D modeling + sub-nucleon structure are essential!

talk by Chun Shen



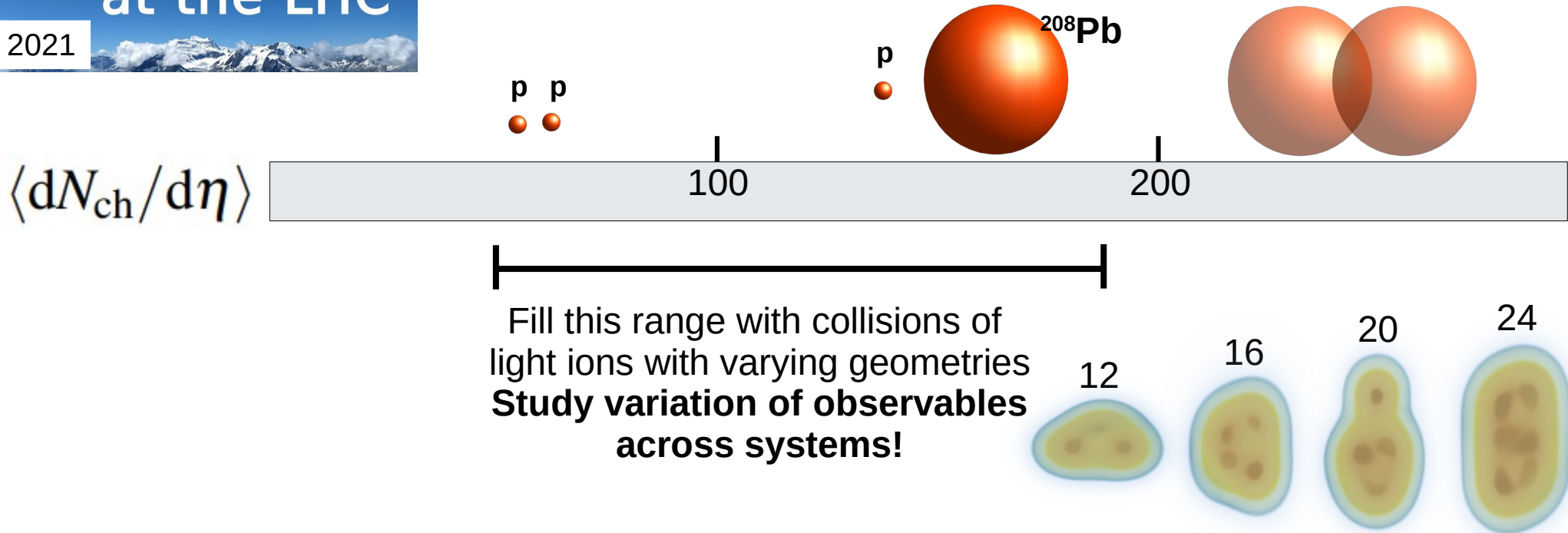
[Zhao, Ryu, Shen, Schenke, PRC 107 (2023) 1, 014904]



[Schenke, RPP 84 (2021) 8, 082301]

Irreducible uncertainties?

Light-ion rationale – Mitigating theory systematics



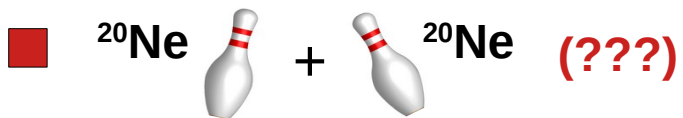
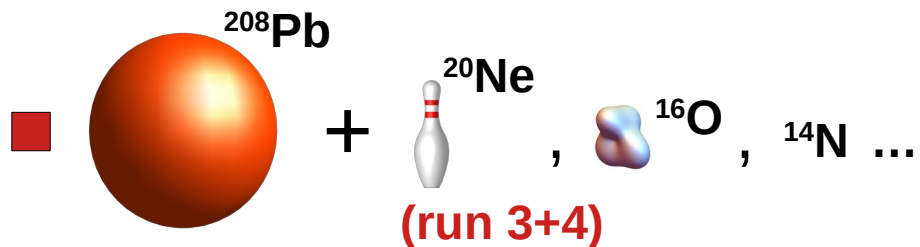
For soft observables, worked out case for Ne+Ne vs O+O collisions, see next slides by Govert Nijs

For hard probes, we need to discuss at this workshop

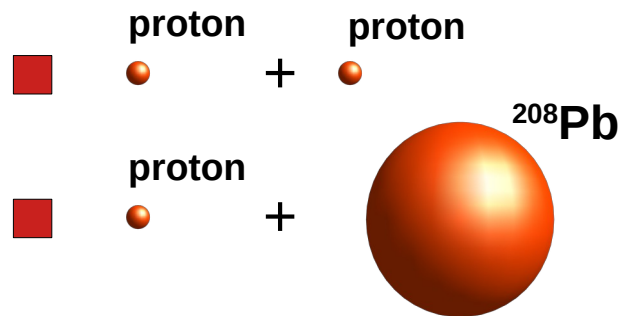
Future?

FIXED-TARGET @ LHCb

talk by Giacomo Graziani



COLLIDER



talks by Maciej Slupecki, Natalya Triantafyllou

