PAPERS / RESULT

Two-particle correlations in azimuthal angle and pseudorapidity in inelastic p + p interactions at the CERN Super Proton Synchrotron

NA61/SHINE Collaboration (A. Aduszkiewicz (Warsaw U. (main)) *et al.*). Oct 3, 2016. 14 pp.
Published in **Eur.Phys.J. C77 (2017) no.2, 59**
CERN-EP-2016-234, FERMILAB-PUB-16-650
DOI: 10.1140/epjc/s10052-017-4599-x
e-Print: **arXiv:1610.00482 [nucl-ex]** | **PDF**

PUBLISHED

· **Measurements of $\pi^{\pm}$, $K^{\pm}$, p and $\bar{p}$ spectra in proton-proton interactions at 20, 31, 40, 80 and 158 GeV/c with the NA61/SHINE spectrometer at the CERN SPS**

NA61/SHINE Collaboration (A. Aduszkiewicz (Warsaw U.) *et al.*). May 6, 2017.
Published in **Submitted to: Eur.Phys.J.C**
CERN-EP-2017-066, FERMILAB-PUB-17-185-AD-ND
e-Print: **arXiv:1705.02467 [nucl-ex]** | **PDF**

UNDER EPJC REVIEW

· **Measurement of Meson Resonance Production in π^-+C Interactions at SPS energies**

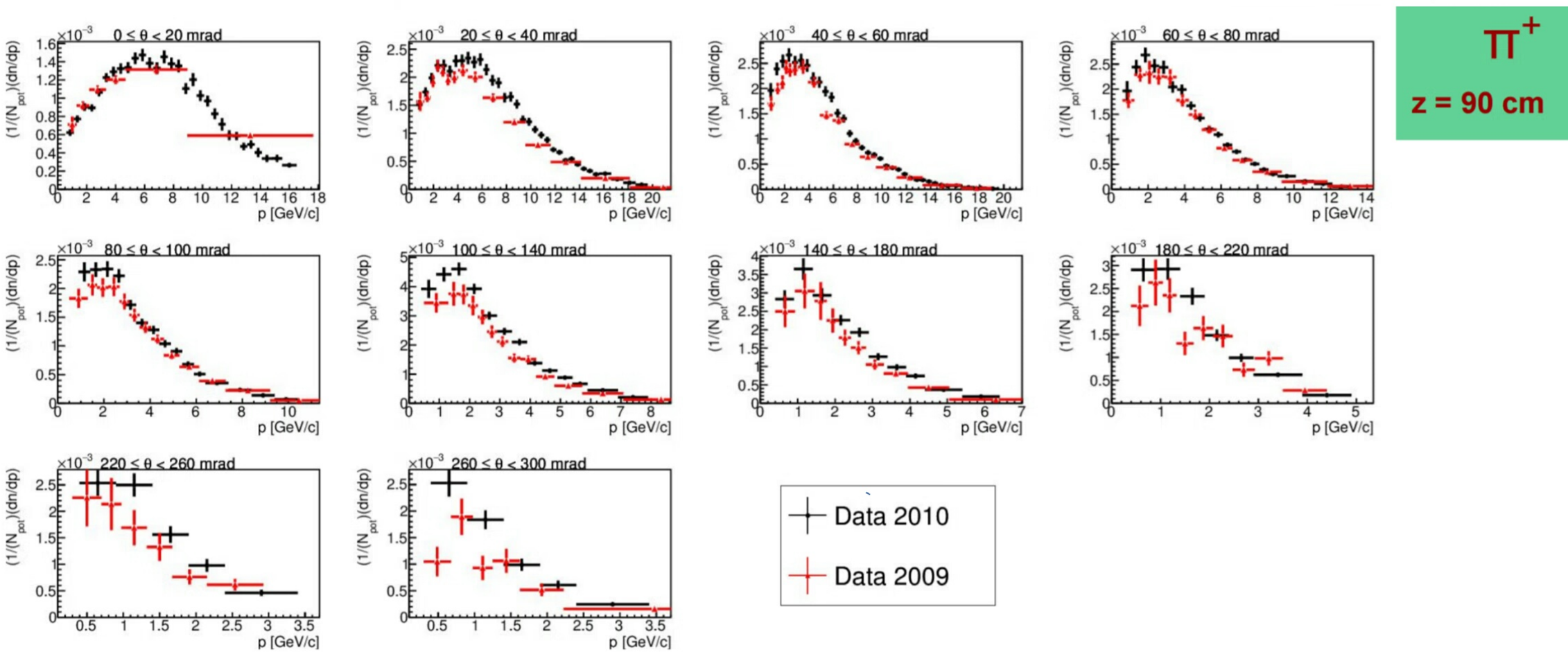
A. Aduszkiewicz (Warsaw U.) *et al.*. May 23, 2017.
CERN-EP-2017-105
e-Print: **arXiv:1705.08206 [nucl-ex]** | **PDF**

References | BibTeX | LaTeX(US) | LaTeX(EU) | Harvmac | EndNote
CERN Document Server; ADS Abstract Service

UNDER EPJC REVIEW

PRELIMINARY RESULTS

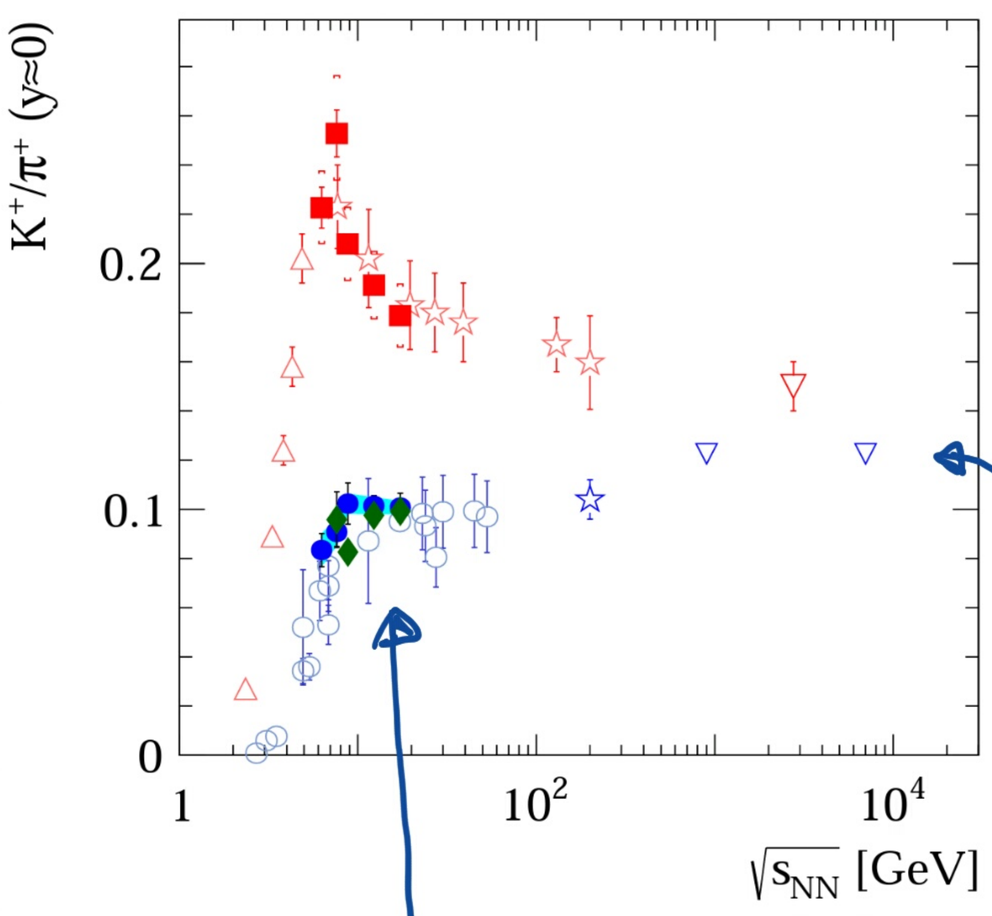
π^+, π^- SPECTRA IN pt (T2K RT) AT 31 GEV/c FROM 2010

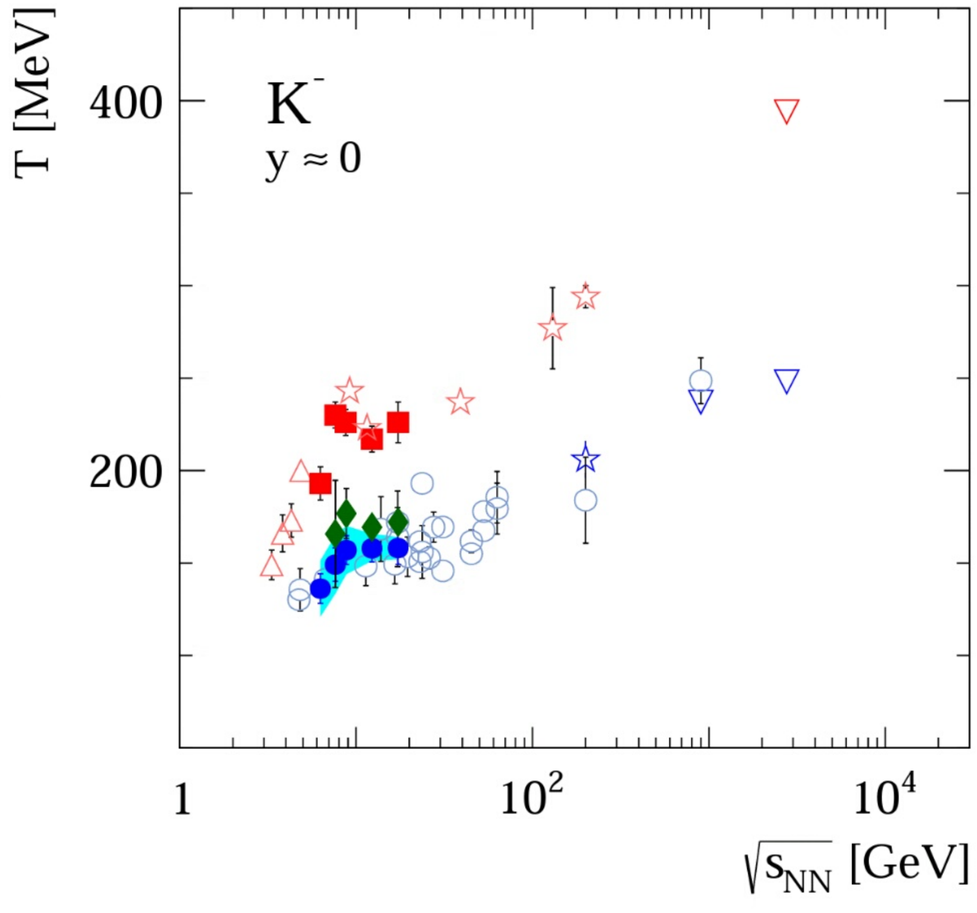


π^+

z = 90 cm

K^+, K^- SPECTRA IN Be+Be AT 30A, 40A, 75A, 150A GEV/c

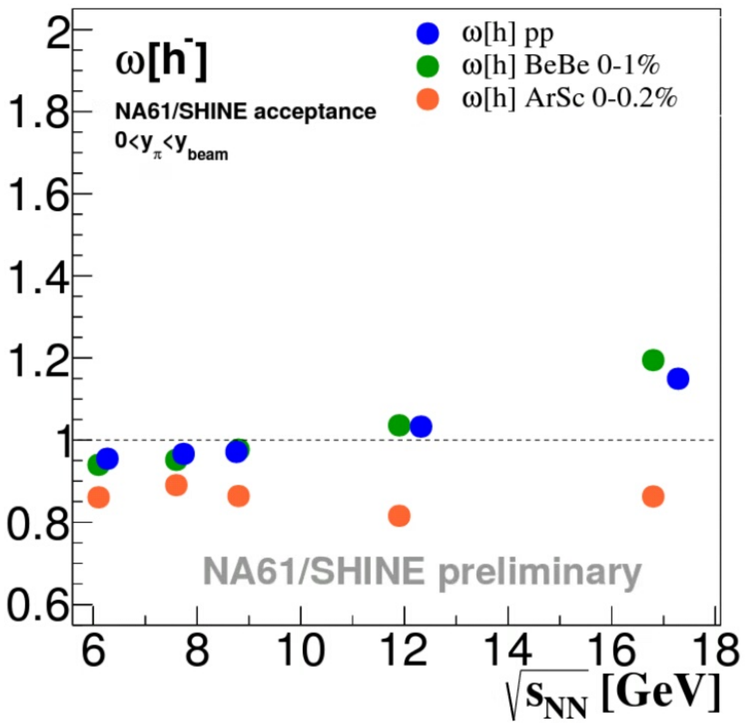




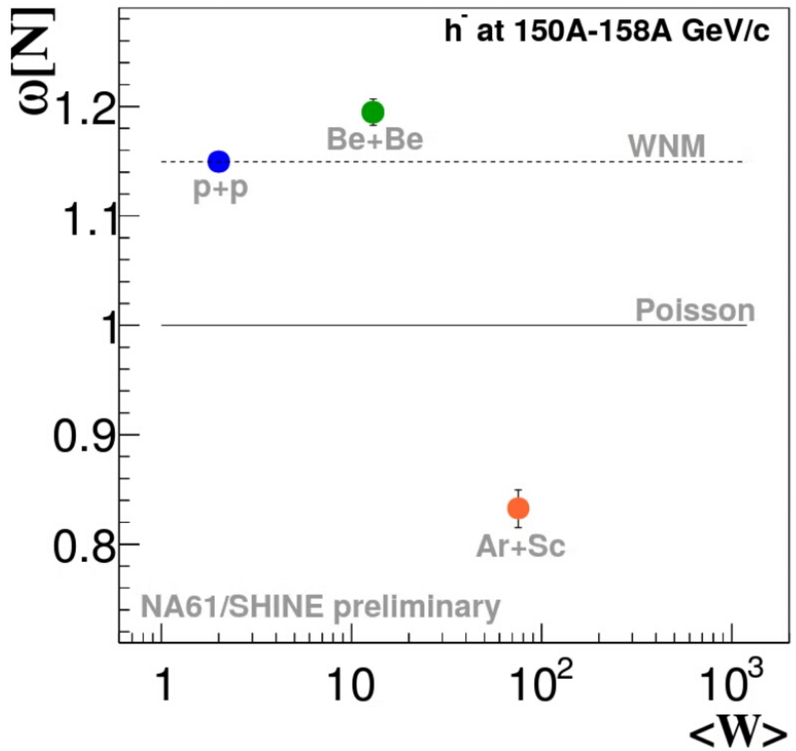
PHASE TRANSITION IN p+p ? ⇒ QGP IN p+p AT LHC ?

Energy and system size energy dependence of $\omega[N]$

Collision energy dependence

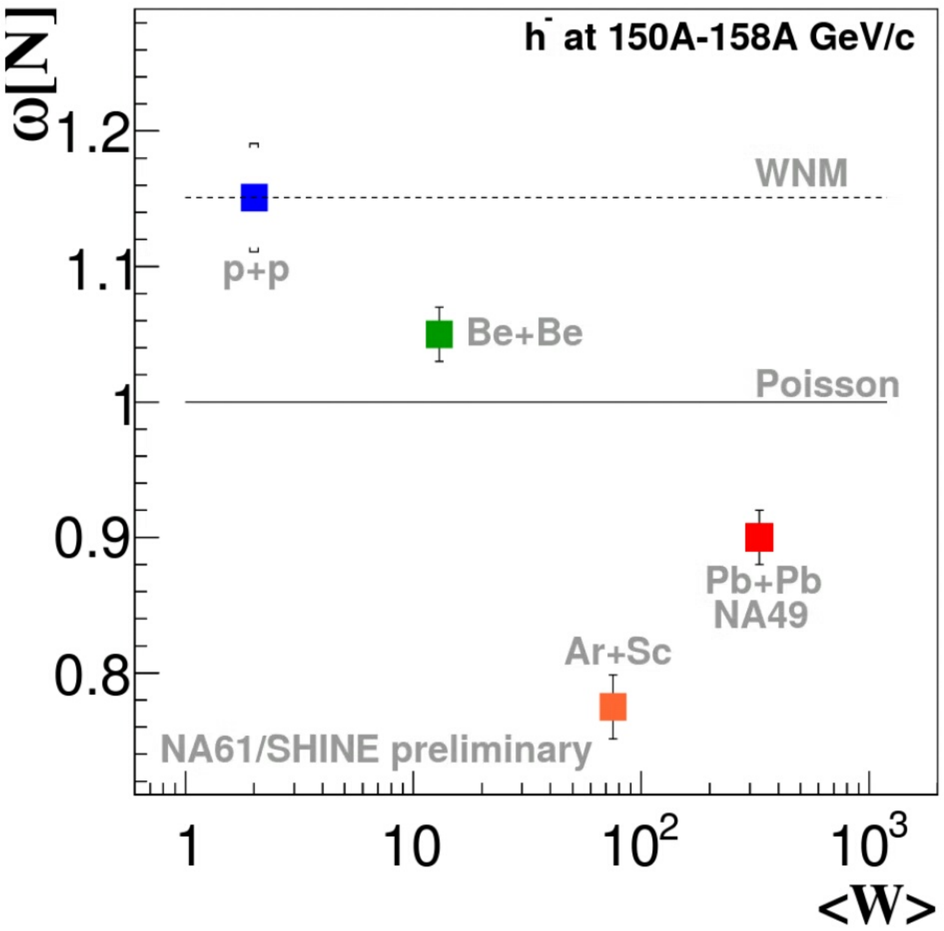


System size dependence



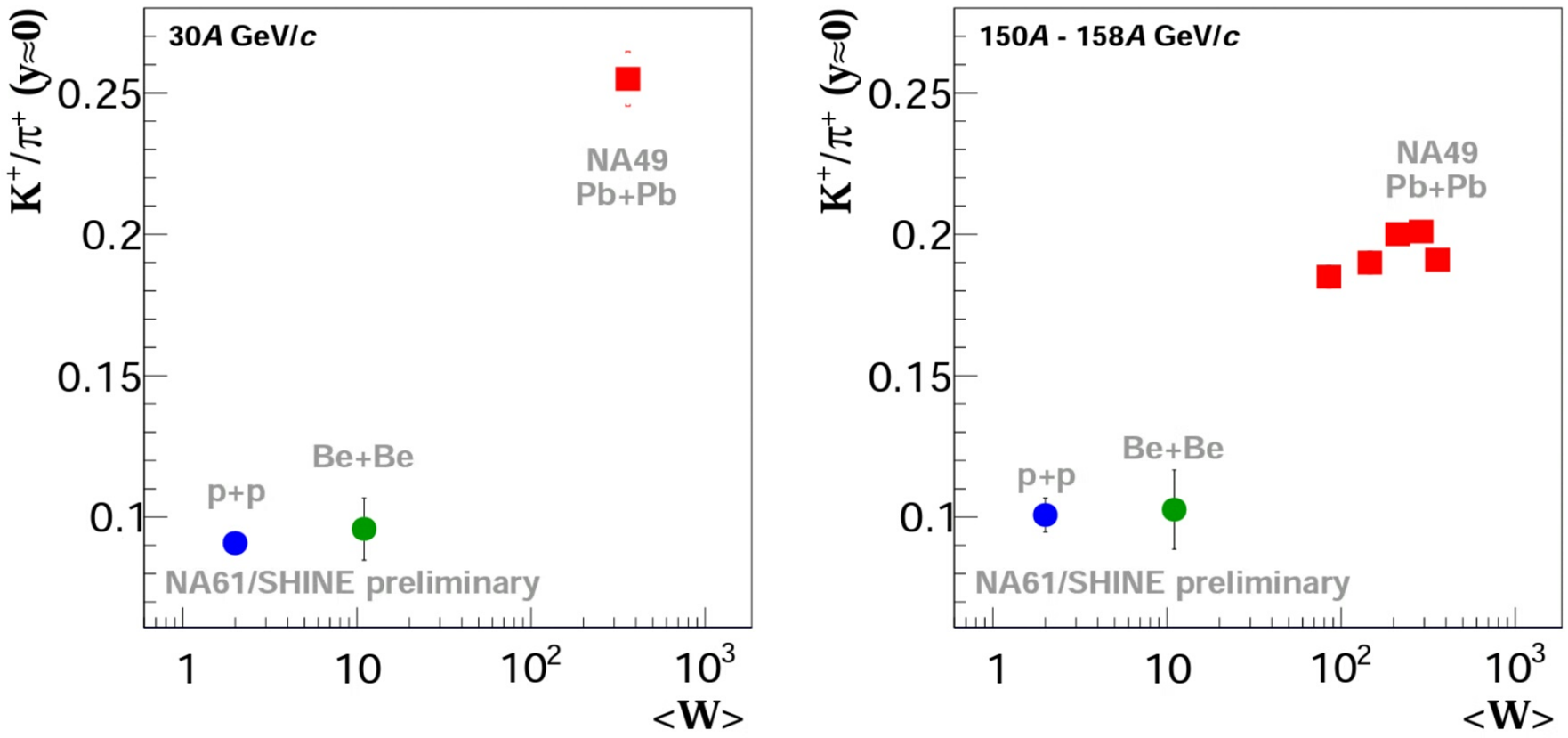
- $\omega[N]$ decreases with the system size what is **not expected** in **Grand Canonical Ensemble** (Poisson) or the **Wounded Nucleon Model** (p+p)
- Be+Be results close to p+p and significantly higher than Ar+Sc

Comparison with NA49

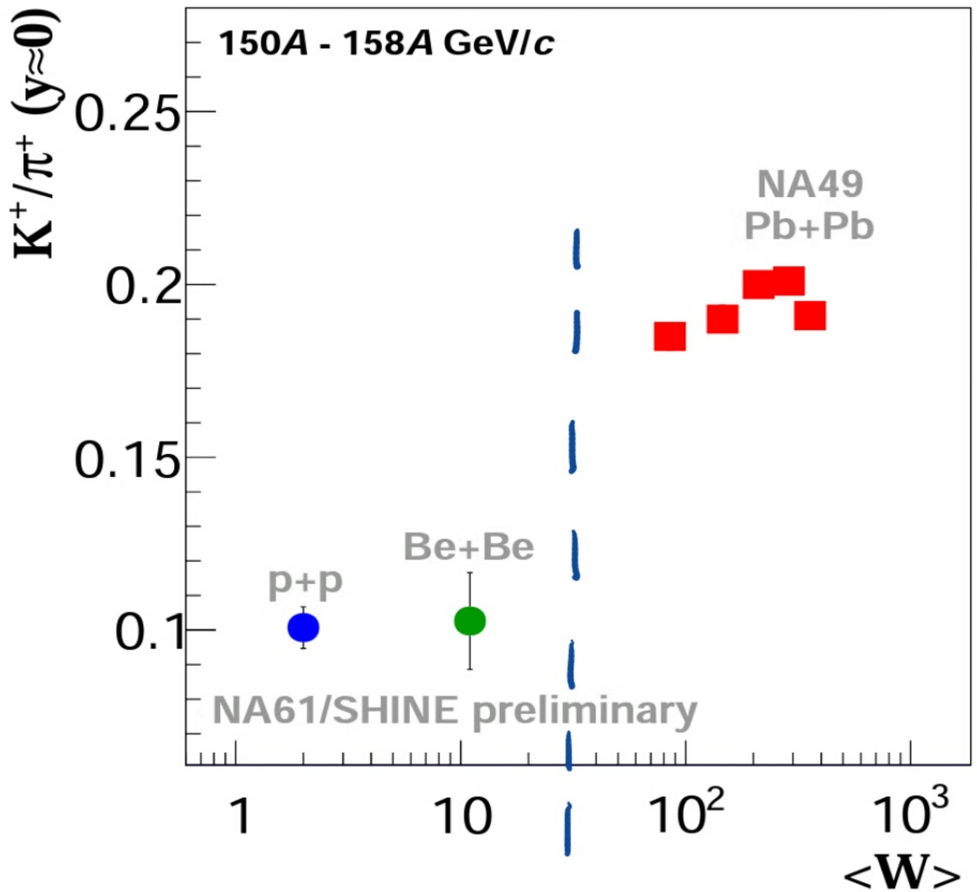


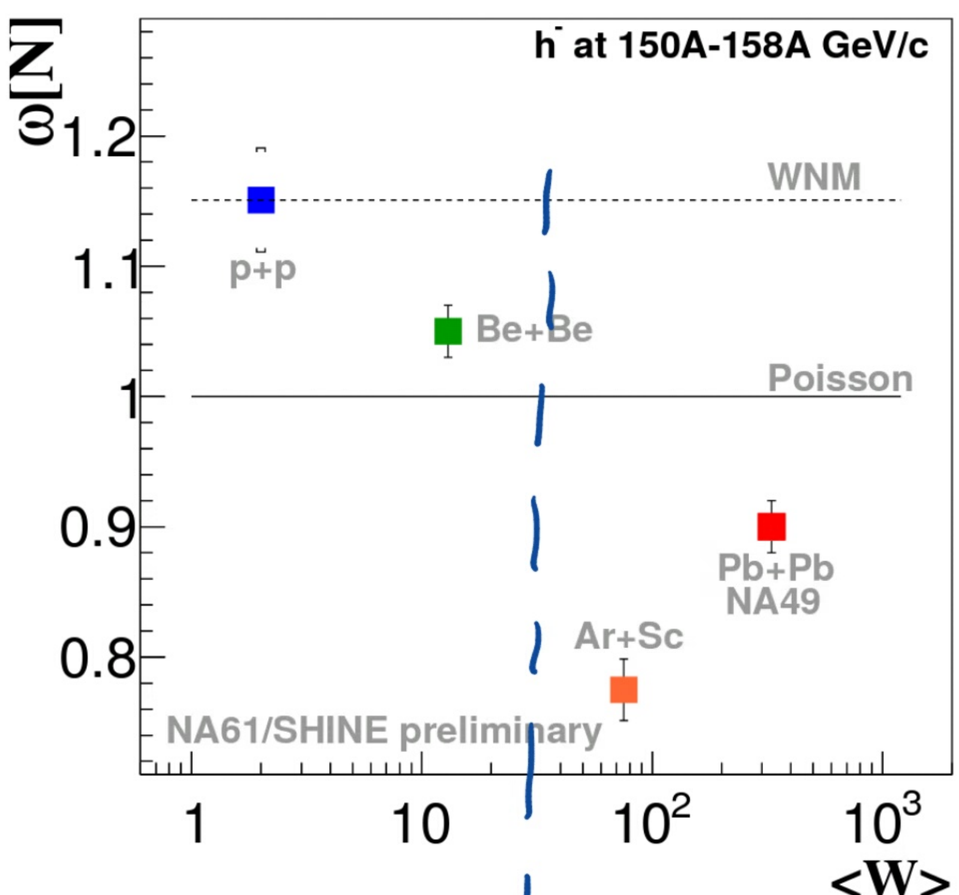
- NA61/SHINE data were analysed in NA49 acceptance what reduces the mean multiplicity of negatively charged hadrons by 30% for 150A GeV/c and up to 50% for 20A GeV/c (for detail see EPJC 76 11: 635)
- Significant difference between light and heavy systems remains

Looking back to particle yields ratios...



- Surprisingly Be+Be results are very close to p+p independent of collision energy
- As in the case of $\omega[N]$ data suggest a jump between light and heavy systems





? PERCOLATION THRESOLD?

NA61/SHINE Beyond 2020 Workshop

26-28 July 2017
University of Geneva
Europe/Zurich timezone

Search...

This workshop will focus on development of the physics program for the NA61/SHINE detector in the years after CERN's Long Shutdown 2. This versatile detector has been used in recent years for heavy ion physics as well as particle production measurements for understanding neutrino beams and cosmic ray air showers. The collaboration is open to new potential physics opportunities from these or other physics communities. This workshop will provide a forum to present plans and ideas to current and potential new collaborators. A tour of the detector will be conducted.

Starts 26 Jul 2017 13:00
Ends 28 Jul 2017 18:00
Europe/Zurich

Alain Blondel
Eric Daniel Zimmerman

University of Geneva

Organizing committee:

- Antoni Aduszkiewicz (University of Warsaw)
- Alain Blondel (University of Geneva)
- Marek Gazdzicki (Goethe-Univ. Frankfurt)
- Alysia D. Marino (University of Colorado)
- Vittorio Paolone (University of Pittsburgh)
- Boris Popov (LPNHE (Paris) / JINR (Dubna))
- Szymon Puławski (Silesia Univ.)
- Michael Unger (Karlsruhe Institute of Technology)
- Philip von Doetinchem (University of Hawaii)
- Eric D. Zimmerman (University of Colorado)