

## **PWG2 tasks and schedule in 2019**

- Regularity of PWG2 meetings
- PWG2 physics cases
- PWG2 members and structure
- PWG2 urgent tasks in 2019
- Agenda of this meeting and next PWG2 meetings

## **PWG2 co-conveners:**

Xianglei Zhu (Tsinghua Univ., China) [zhux@tsinghua.edu.cn](mailto:zhux@tsinghua.edu.cn)

Vadim Kolesnikov (JINR, Dubna, Russia) [Vadim.Kolesnikov@cern.ch](mailto:Vadim.Kolesnikov@cern.ch)

## **Regularity of PWG2 meetings**

**Ideally** – weekly, or every two weeks

**Day of week and time** – not defined yet

# PWG2 physics cases

- **Light flavor hadron spectra, yields, and ratios**

Energy, system size and centrality dependence of the production of charged hadrons (pions, kaons, (anti)protons).

Extraction of transverse momentum spectra, rapidity distributions, mean multiplicities, and particle ratios.

Nuclear modification factor, antiparticle/particle ratio, radial flow, phase diagram mapping.

- **Strangeness (hyperons and hypernuclei)**

Analysis of strange hyperons (Lambda, Ksi, Omega) and their antiparticles: spectra, yields, antiparticle/particle ratio, nuclear modification factor, azimuthal anisotropy (together with PWG3).

(Anti)Lambda polarization.

Reconstruction of single and double hypernuclei: spectra, rapidity density, and lifetime.

- **Resonances**

Production of  $\rho$ ,  $\phi$ , Kstar, Lambda(1520) etc.

- **Light nuclei**

Production of nucleon clusters (d, t, He3, He4) in various reactions (from p+p to Au+Au): spectra, yields, coalescence coefficients.

# PWG2 members

At present **13** members and **~5** candidates (JINR, Warsaw, MSU)

*Less than number of tasks (taking into account sharing of activities by some members)*

## **PWG2 tasks w (w/o) manpower:**

- Hadron spectra, yields, ratio: ~7 people (JINR, Warsaw)
  - Hyperons: **2** members
  - Hypernuclei: (**same!**) **2+1** members
  - Hyperon polarization – **w/o** manpower
  - Resonances – **PNPI group**
  - Light nuclei – **no** manpower
- 
- ✓ Strong groups for light flavor spectra and resonances
  - ✓ Experienced people for hyperons and hypernuclei, after addition several more participants becomes a strong one
  - ✓ No manpower for light nuclei, polarization, phenomenology

# PWG2 (urgent) tasks in 2019

**Preparation for multiple events during October'19 – January'20:**

Coll. Meeting (October), QM Conference (November), PAC+DAC (January)

*+ RBBR grants continuation campaign*

## **Status of data sets:**

**Hyperons** – 8Mevents at 11 GeV PHSD

**Hyperon Flow** –several Mevents at 11 GeV UrQMD

**Hypernuclei** – several Mevents at 4 GeV DCM-QGSM

*Other requests for DST production will be prepared once currently produced data will be tested and understood.  
A potential candidate – the DCM-SMM model (Botvina) for (hyper)nuclei, which is under tuning & testing now*

**Friday, 13 September 2019**

10:00 - 10:20

PWG2 tasks and schedule in 2019 20'

Speaker:

Д-р. Vadim Kolesnikov (VBLHEP, JINR)

10:20 - 10:50

MPDRoot hadron spectra analysis 30'

Speaker:

Dr. Alexey Aparin (Joint Institute for Nuclear Research)

10:50 - 11:20

Pion and kaon yields in Au+Au: status of the analysis 30'

Speaker:

Mr. Alexander Mudrokh (JINR)

11:20 - 11:35

Preparation to QM2019: status of the hyperon flow analysis 15'

Speaker:

Mr. Nikolai Geraksiev (JINR)

*Next meeting – 20.09.2019 (materials for the QM poster, V.Vasendina & N.Geraksiev)*