

Tomsk group (Russia)

Group Members:

1. Valery Lyubovitskij (TL) + Alexey Zhevlakov, Andrey Trifonov: theoretical support.

Work for COMPASS, NA64 (CERN SPS), GlueX (JLab)

- Justification of the COMPASS tetraquark $a_1(1420)$ discovered in 2015
- Partonic structure of nucleon, resonances and deuteron in AdS/QCD and Light-Front QCD
- Rare CP-violating decays $\eta(\eta') \rightarrow \pi\pi$, photoproduction of baryon pairs on proton target
- Proposal for and justification of $\mu - \tau$ conversion in DIS on fixed nuclear (Pb, Fe) target at CERN SPS
- Unified description of PDFs, TMDs, GPDs and Form Factors.
- Work for SPD: unified description of Drell-Yan processes, spin physics.

Closed collaboration with JINR groups (Ivanov, Nagaytsev, Teryaev).

2. Vitaly Burtsev

- frontend electronics, DAQ.
- Since autumn 2018 in JINR.
- Most of time working for SPD project (miniSPD stand, DAQ).

3. Renat Dusaev

- Alignment, software developments.
- Since 2018 is responsible for alignment in COMPASS.
- Experience in hardware: HCAL assembly and calibration for NA64/CERN.

4. Alexandr Chumakov and Bogdan Vasilishin.

- MC simulation of DY processes.
- Software developments for COMPASS and NA64.

5. Master and PhD students from 3 Tomsk Universities.

- Training in JINR and further work in the SPD (NICA) experiment.

Key Interests in the SPD/NICA Project:

1. Front-end electronics and DAQ.
2. Computing and MC simulations.
3. Theoretical support.