

Statement for the BM@N spokesperson position

Experience in research and management:

- leader of the BM@N experiment at the first stage since March 2014
- experience in physics analysis, detector and software development in high energy and hadron physics experiments: BIS-2, EXCHARM at Serpukhov
- leader of the JINR group participating in the H1 experiment at DESY (1998-2014) , leader of the H1 Forward Proton Spectrometer (2000-2014)
- convener of the Diffraction Physics Working Group in the H1 experiment (2006-2012), supervision of diploma and PhD students, performed data analyses of diffractive structure function and diffractive jet production

Tasks of the spokesperson for the next three years:

1. upgrade the experiment to the second phase to make it able to record quality data of heavy ion collisions

- developing of large area silicon tracking detectors, heavy ion beam and trigger detectors and dedicated beam pipe, promoted outer tracker, zero degree calorimeter, readout electronics and data acquisition system
- realization of the upgrade program requires close cooperation with participating institutions and groups responsible for subsystems
- MoUs with participating institutions should cover all the upgraded areas

2. priority analysis of the experimental data recently recorded in interactions of carbon, argon and krypton beam with different targets

- the aim is to prepare quality physics results to present at the international conferences and, finally, to publish
- people involved into analyses will gain experience and be prepared for more complicated analyses of heavy ion collision data
- data analysis will provide a scope of themes for diploma students and give chances for young physicists to prepare and defend PhD theses based on real data

3. Priorities in the experiment management

- Involvement of new groups of participants into the detector development, data analysis, simulation and software development will be fully supported
- Preparation of MoUs between the participating institutions and the BM@N (short term task)
- Formation of active working groups to cover different fields of analysis (short term task)
- Attraction of new diploma and PhD students for detector calibration, data analysis, simulation and software development (MEPhI, WUT, MSU)
- Extension of the physics program beyond heavy ion collisions is also endorsed provided the proposal is properly defended
- Active presentation of the physics program, current project status and first results at international conferences will make the BM@N experiment more visible in the heavy ion community and attract new participants

Urgent task is formation of active working groups to cover different fields of analysis:

Hyperon reconstruction, simulation and analysis

Particle identification, simulation and analysis

Track reconstruction and simulation

BMNROOT software development

Data quality analysis

Detector simulation and reconstruction

ECAL: gamma data analysis and simulation

SRC data analysis and simulation

ZDC: centrality / reaction plane data analysis and simulation

► need active experienced people to work as conveners