

WP2, Task 2.5: objectives, participants, tasks, organization of work

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Task 2.5 - “Development and construction of ZDCs for NICA and CBM”

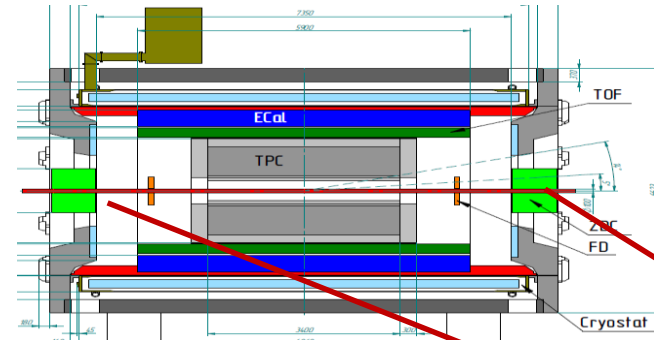
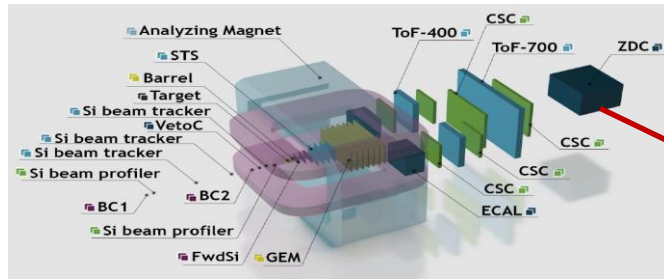
**Participants - INR RAS (1 FTE),
NPI CAS (2 FTE)**



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The main objectives of the task 2.5 within WP2:

- The development and commissioning of the FHCAL at the BM@N and MPD experiments at NICA



Development of the DCS for the FHCAL at the BM@N and MPD. (O.Petukhov presentation).

- The development of calibration procedures and methods for centrality determination with the BM@N/MPD FHCAL and CBM PSD. (Presentations of N.Karpushkin and V.Volkov).
- R&D of carbon beam pipe for FHCAL (NICA) and PSD (FAIR). (P.Chudoba presentation).
- Tests of radiation hardness of SiPM, scintillators and beam pipe. (V.Mikhailov presentation).

Task 2.5 deliverables

D2.9 Design of ZDC detector modules (M12) - Report

D2.10 ZDC detector modules constructed and tested (M48) - Report

INR @ task 2.5

INR participants of the task 2.5 – Nikolay Karpushkin, Oleg Petukhov, Vadim Volkov and Fedor Guber



**Nikolay Karpushkin,
PhD student**



**Oleg Petukhov
researcher**



**Vadim Volkov,
PhD student**

INR tasks

- Development of calibration methods with cosmic muons for the FHCAL at BM@N/MPD and PSD at CBM.
- Development of methods of centrality determination with the FHCAL at the BM@N, MPD and CBM.
- Development of the DCS for the FHCAL at the BM@N and MPD.
- Participation in the BM@N FHCAL and MPD FHCAL commissioning.

NPI @ task 2.5

NPI participants of the task 2.5 – Petr Chudoba, Alexander Prozorov Vasily Mikhaylov, Vassily Kushpil (senior), one engineer and Andrei Kugler



**Alexander Prozorov,
PhD student**



**Vasily Mikhaylov,
PhD student**



**Petr Chudoba,
Postdoc**

NPI tasks:

- **Tests of radiation hardness of SiPM, scintillators and beam pipe.**
- **Simulation of FHCAL and PSD for reaction plane and centrality determination.**
- **R&D of carbon beam pipe for FHCAL (NICA) and PSD (FAIR).**
- **The BM@N FHCAL and MPD FHCAL commissioning.**

How to organize joint work between INR and NPI participants of the task 2.5?

- **Regular vidyo meetings and face-to face workshops.**
- **Participation of both teams in the commissioning of the forward hadron calorimeters at the BM@N and MPD in JINR.**
- **Visits of INR participants at NPI and vice versa.**
- **Preparation of joint publications.**

Thanks for
your attention