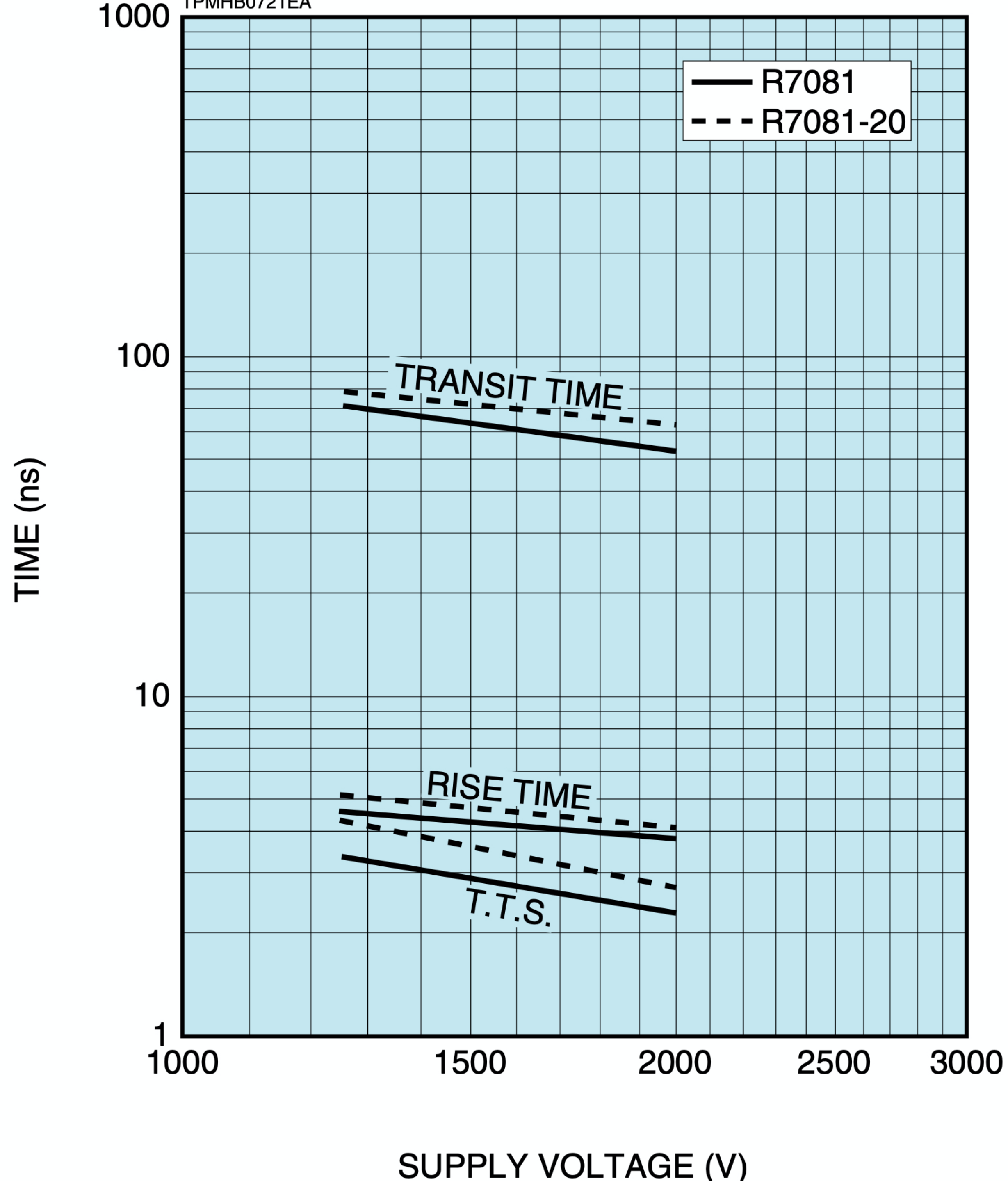


Data Processing

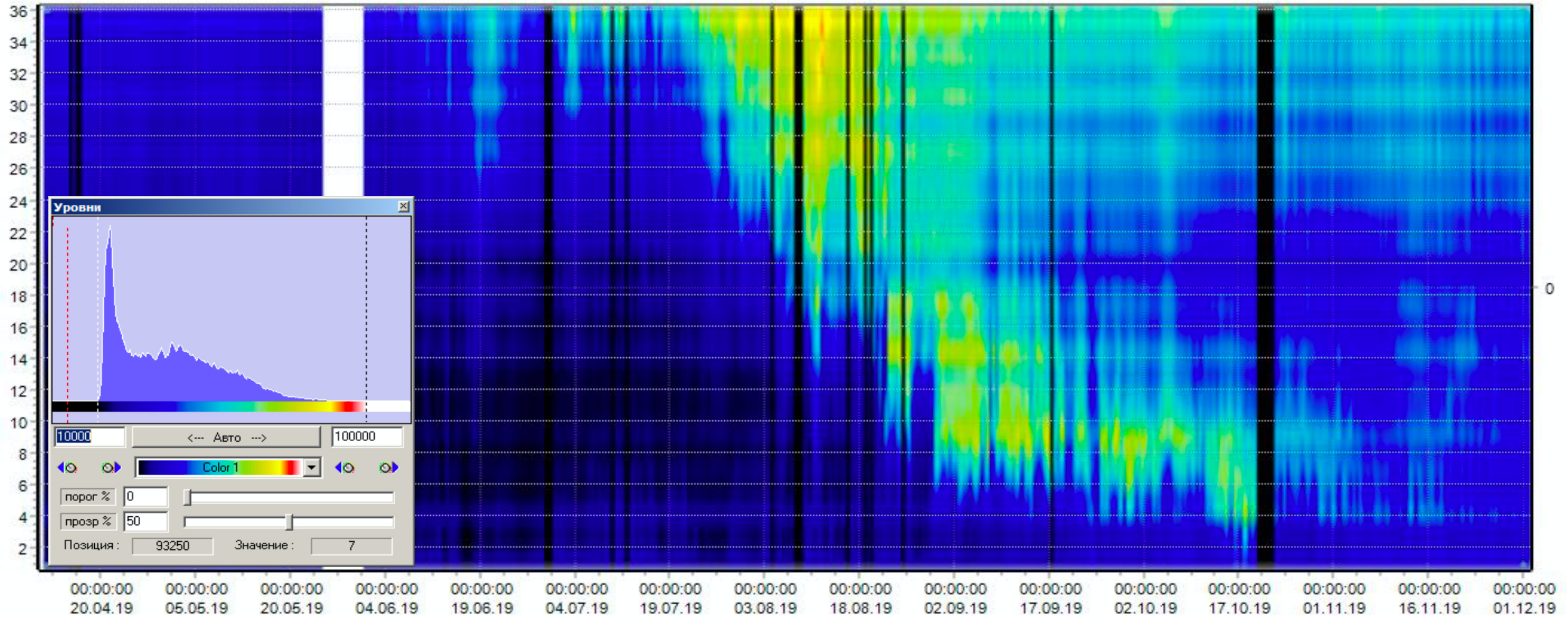
25.06.2020

Tasks

- New PMT signal processing. Lukas is working on that. Results promising
- Single cluster event building. Timers and EventID bugs studied. Thinking how to fix
 - Alert system. Paused. Starting to resume. Fake alert.
- Multi cluster event building. Paused.
- Data monitoring. Resumed
- DQM works automatically. qcalib 2020 results robust. Place results to dashboard
- Preliminary time calibration 2020 obtained by new fast method. Add Transit time vs HV. Check it with time calibration 2019
- LED switching off. Done
- CrossTalks filtration. Paused.



Мониторинг (Psec)



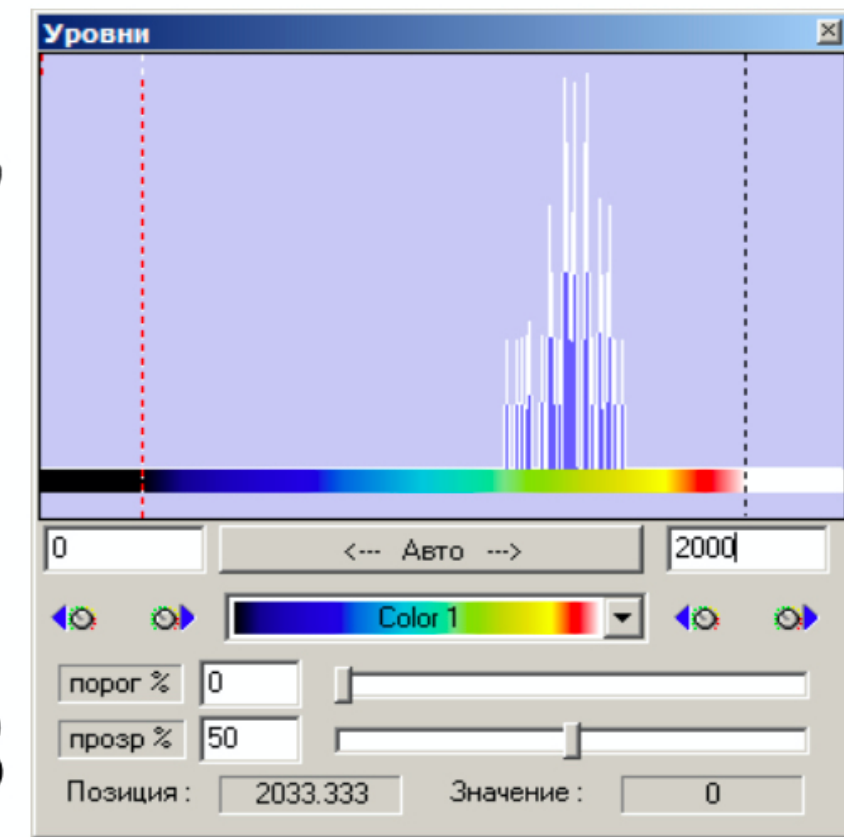
Уровень шумов
()

Кластер: №3 Гирлянда: №3 Секция: №1,2,3 Модуль: №1-36

Период: с 2019.04.10 по 2019.12.01



Мониторинг (HV)



Кластер: №3 Гирлянда: №5,6,7,8 Период: с 2018.04.19 по 2019.02.28



Single cluster processing

- 2 processing types. Both are processing on the same queue
 - Current data processing. Per-run processing (nonuniform loading of machines over time). Switch to per-file processing
 - fixed Synchro timer resetting 1.5 months ago
 - fixed EventIDCC resetting today
 - Data reprocessing 2019 has just been done (several months!)
 - EventIDCC resetting
 - Synchro timer resetting -> Use of fTimeCC instead?! 8.6 sec per 24 hours runup. Resetting after 24 hours (most of runs last less than 24 hours)
 - Fast fix: Add new root file with fixed BJointHeader next to joint.events.root. BReadTree with new option. Include new way to add WR times.
- bzip2 from EOS -> VM -> joint.events to cephfs -> upload_to_eos/ -> EOS
- One queue for all the clusters!
- 9 VMs are working. Can take more from 90 VMs pool!

**Baikal-GVD data analysis
coordination:
Zhan-Arys Djilkibaev
Igor Belolaptikov**

Computing

Timur Elzhov

- Data transfer
- Storage
- Computing resources
- BARS software releases
- Web services

Data Processing

Bair Shaybonov
Mikhail Katulin

- PMT signal processing
- Event building (single-cluster, multi-cluster)
- Online data monitoring
- DQM
- Dataset validation
- Alert system

Calibration

Alexander Avrorin
Maxim Sorokovikov

- Time calibration
- Charge calibration
- Geometry
- OM properties
- Water properties
- Calibration automation

Reconstruction

Lukas Fajt
Grigory Safronov

- Muon reconstruction
- Cascade reconstruction
- Neutrino event selection
- Bank of neutrino events

MC Simulation

Dmitry Zaborov
Konstantin Konishev

- Detector response
- Detector conditions
- Light propagation
- Neutrino propagation and interactions
- Muon propagation and interactions
- Muon and neutrino flux