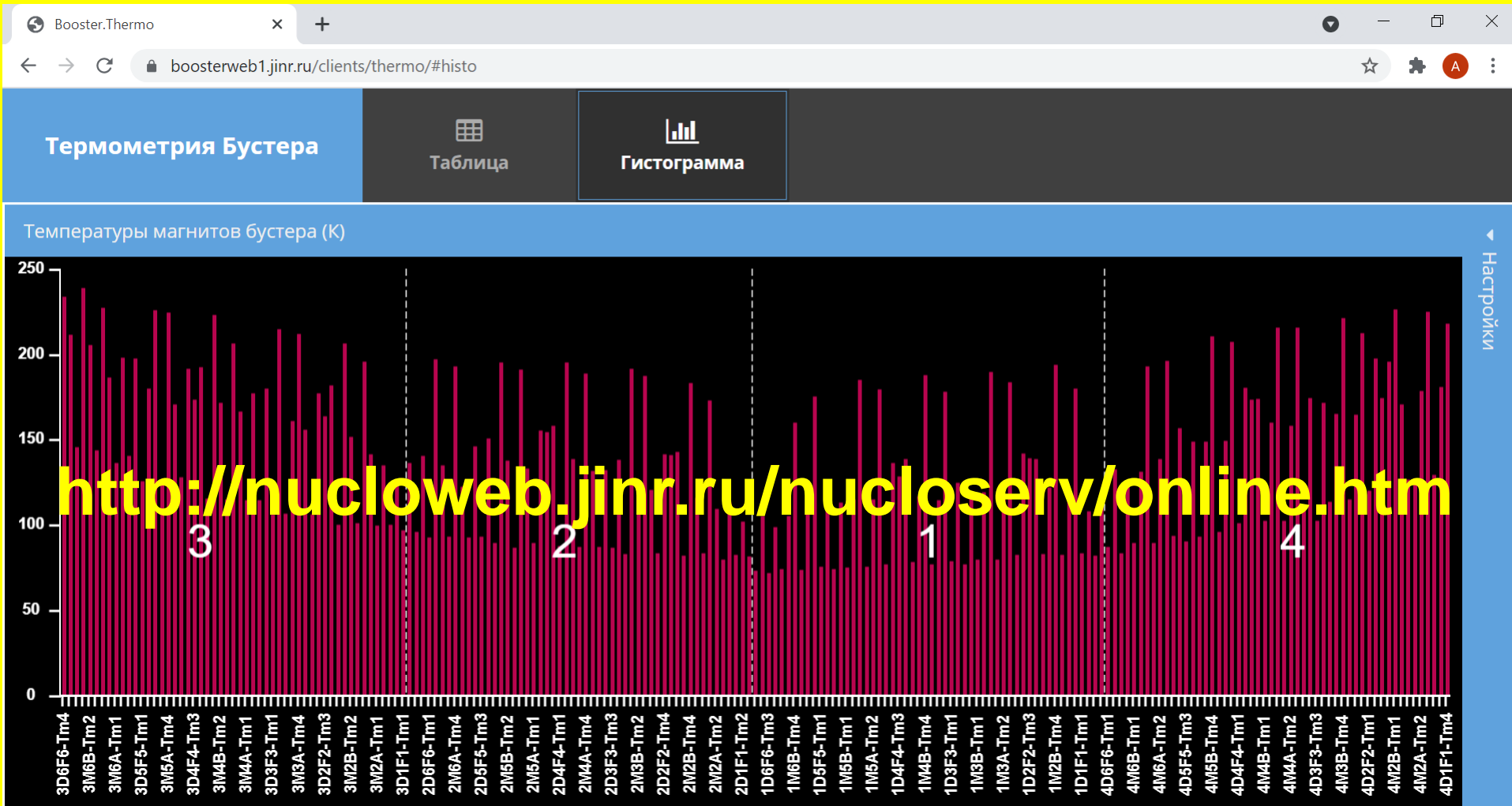


Implementation of the Nuclotron-NICA project

A.Sidorin, on behalf of the team



PP PAC, JINR, Dubna, 21 June 2021

Contents

Second run of the Booster operation

Plans and schedule of the nearest NICA runs

Status of the collider construction

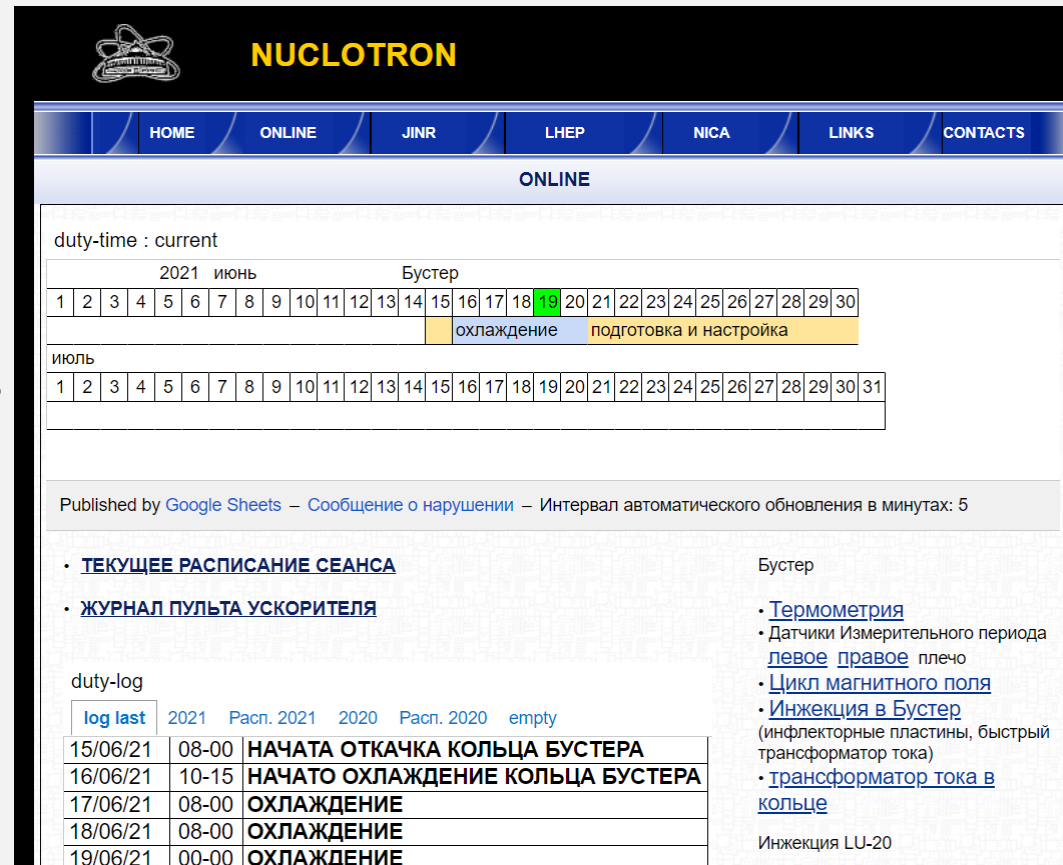
Second run of the Booster operation

A.Alfeev

15.06 pumping
16.06 cooling

21.06 – 30.06
Tuning of the power supplies

30.06 – 25.07
Operation with beam



The screenshot displays the NUCLOTRON website interface. At the top, there is a logo and the title "NUCLOTRON". Below this is a navigation bar with links: HOME, ONLINE, JINR, LHEP, NICA, LINKS, and CONTACTS. The "ONLINE" section is active, showing the current duty-time and a calendar for June and July 2021. The calendar indicates that the booster is currently in the "охлаждение" (cooling) phase, with "подготовка и настройка" (preparation and tuning) scheduled for the following days. A table at the bottom shows the duty-log for the period from June 15 to June 19, 2021, detailing the start and end times of various operations.

NUCLOTRON

HOME ONLINE JINR LHEP NICA LINKS CONTACTS

ONLINE

duty-time : current

2021 июнь Бустер

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
															охлаждение		подготовка и настройка												

июль

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
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- [ТЕКУЩЕЕ РАСПИСАНИЕ СЕАНСА](#)
- [ЖУРНАЛ ПУЛЬТА УСКОРИТЕЛЯ](#)

duty-log

log last	2021	Расп. 2021	2020	Расп. 2020	empty
15/06/21	08-00	НАЧАТА ОТКАЧКА КОЛЬЦА БУСТЕРА			
16/06/21	10-15	НАЧАТО ОХЛАЖДЕНИЕ КОЛЬЦА БУСТЕРА			
17/06/21	08-00	ОХЛАЖДЕНИЕ			
18/06/21	08-00	ОХЛАЖДЕНИЕ			
19/06/21	00-00	ОХЛАЖДЕНИЕ			

Бустер

- [Термометрия](#)
- Датчики Измерительного периода [левое](#) [правое](#) плечо
- [Цикл магнитного поля](#)
- [Инжекция в Бустер](#) (инфлектронные пластины, быстрый трансформатор тока)
- [Трансформатор тока в кольце](#)

Инжекция LU-20

Second run of the Booster operation

V.Karpinsky, A.Tuzikov

21.06 – 30.06

Tuning of the Booster power supplies

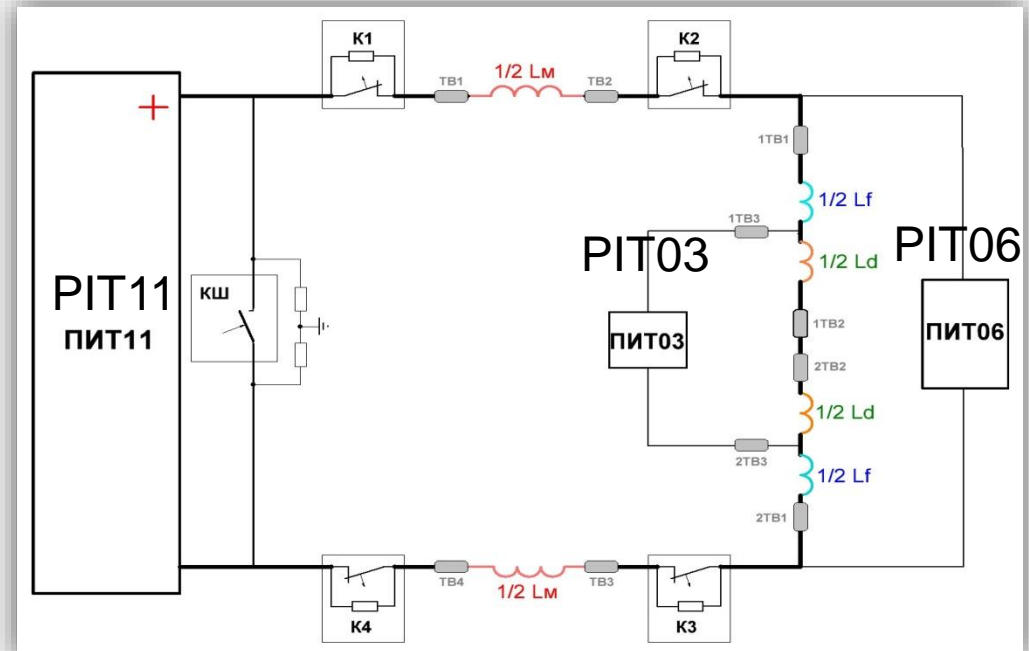
Main power supply unit
PIT11 (11kA, 260V)

During the first run:
required stability at plateau,
Improvement of the stability
at rising field is necessary

Additional units
PIT03, PIT06

tuning was not completed

Test of BNTL power supplies



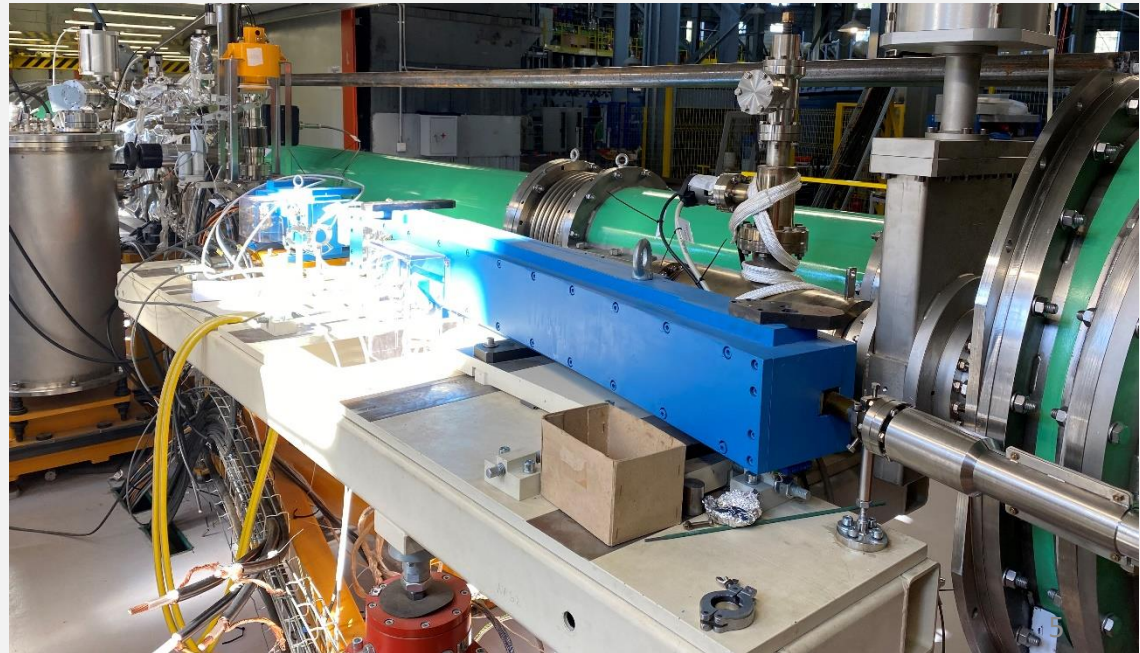
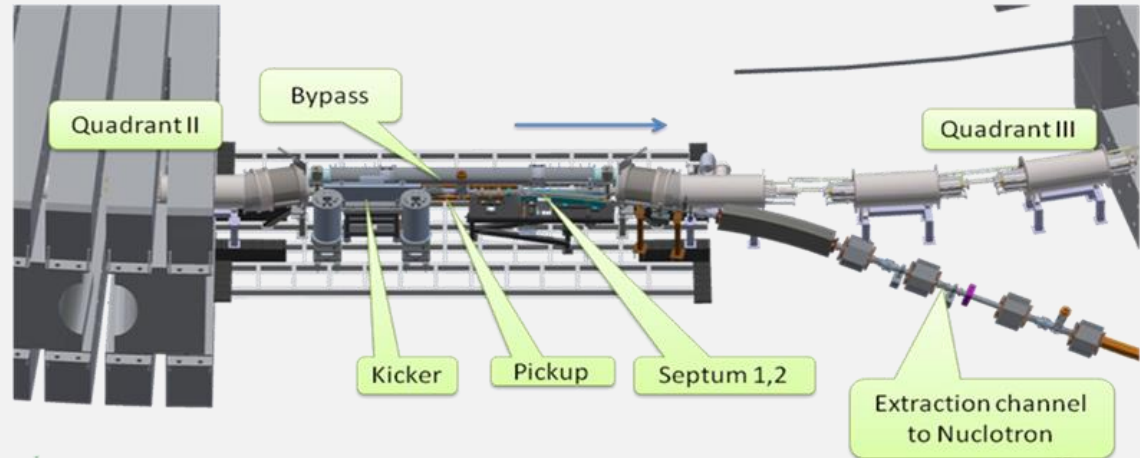
Second run of the Booster operation

A.Tuzikov, A.Kobets

01.07 – 25.07

Operation with beam:
 He^{1+} , Fe^{14+} Ions

- Optimization of the beam dynamics,
- Test of the Booster Electron Cooler
- **Test of the BNTL**



Plans of the nearest NICA runs

A. Butenko

November – December 2021:

- First NICA run (HILAC + Booster + Nuclotron),
- SRC experiment with C beam

(Schedule will be determined on the basis of results of the Booster run)

Spring 2022

- Second NICA run: start of BM@N

End of 2022

- Third NICA run: injection into Collider, BM@N

Progress in the Collider construction

- Serial production of the collider cryo-magnetic system elements is in progress, 100% of the dipole magnets are fabricated and tested
- Main elements of the magnetic optics of the Nuclotron-collider transport channel were fabricated and transferred to JINR
- RF1 and RF2 stations are constructed and transferred to JINR;

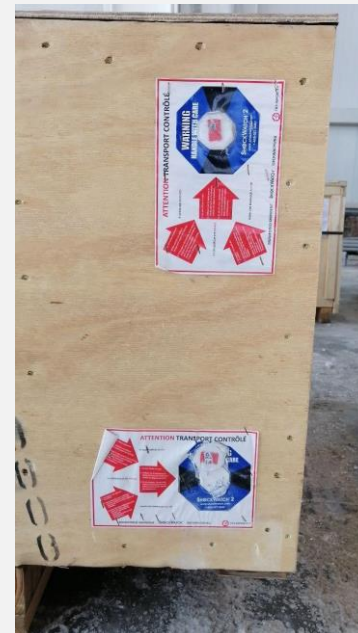
SPD hall is used as a storage area

BTC completion was shifted to:

BTC_SPD 31/08/21

BTC_MPD 23/08/21

The completion in time is **mandatory!**



Thank you for your attention

