

**PROPOSALS OF STC LABORATORIES  
ABOUT CHANGES ON THEMES AND PROJECTS  
OF TOPICAL PLAN FOR JINR RESEARCH AND IC 2025**

The total number of themes in the 2024 Topical Plan is 34,  
including 9 projects concluding in the year 2024.

**Large Research Infrastructure of JINR**

No. pp	Laboratory	Code of LRI and projects Name of LRI and project	Leader of LRI and project	Proposals of the PAC and STC Laboratory for 2025
1.	VBLHEP	02-1-1065-2007/2026 NICA complex	V. D. Kekelidze A. S. Sorin G. V. Trubnikov <i>Deputies:</i> A. V. Butenko V. I. Golovatyuk M. N. Kapishin	
		02-1-1065-1-2011/2024 NUCLOTRON-NICA	A. V. Butenko G. G. Khodzhbagiyan <i>Scientific leader:</i> I N. Meshkov	Continue the project until the end of 2027 (STC Laboratory).
		02-1-1065-4-2020/2024 SPD	A. V. Guskov <i>Deputy:</i> V. P. Ladygin	Continue the project until the end of 2029 (STC Laboratory).

**Elementary Particle Physics and High-Energy Heavy-Ion Physics (02)**

**Participation in international experiments**

No. pp	Laboratory	Theme and project code Name of theme and project	Theme and project leader	Proposals of the PAC and STC Laboratory for 2025
2.	VBLHEP	02-1-1066-2007 Investigation of the properties of nuclear matter and particle structure at the collider of relativistic nuclei and polarized protons	R. Lednicki Yu. A. Panebrattsev	
		02-1-1066-1-2010/2024 STAR	Yu. A. Panebrattsev R. Lednicki	Continue the project until the end of 2029 (STC Laboratory).
3.	VBLHEP	02-1-1087-2009 Research on relativistic heavy and light ion physics at accelerator complex Nuclotron-M/NICA at JINR and SPS at CERN	A. I. Malakhov S. V. Afanasyev	
		02-1-1087-1-2022/2024 NA61/SHINE	A. I. Malakhov <i>Deputies:</i> A. V. Dmitriev A. A. Zaitsev	Continue the project until the end of 2029 (STC Laboratory).
		Activity SCAN-3	S. V. Afanasyev D. K. Dryablov	02-1-1087-2-2017/2027 SCAN-3 Transfer from activity. Continue the project until the end of 2027 (59th session of the PAC on PP, STC Laboratory).
4.	VBLHEP	02-1-1096-2010 Study of rare charged kaon decays and search for dark sector in experiments at SPS CERN	V. D. Kekelidze <i>Deputies:</i> D. V. Peshekhonov D. T. Madigozhin	
		02-1-1096-1-2010/2024 NA62	V. D. Kekelidze <i>Deputy:</i> D. T. Madigozhin	Continue the project until the end of 2027 (STC Laboratory).

5.	DNLP	<p><b>New theme</b></p> <p><b>New project</b> Development of a particle registration technique in future experiments with the participation of JINR</p>		<p><b>Open a new project</b> until the end of 2029 (STC Laboratory). Project leader: Yu. I. Davydov Deputy: Yu. A. Kulchitsky</p>
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### Experiments at the NICA accelerator complex

No. pp	Laboratory	Theme and project code Name of theme and project	Theme and project leader	Proposals of the PAC and STC Laboratory for 2025
6.	VBLHEP	02-1-1097-2010 Study of polarization phenomena and spin effects at the JINR Nuclotron-M/NICA Facility	E. A. Strokovsky Deputies: N. M. Piskunov V. P. Ladygin R. A. Shindin	E. A. Strokovsky V. P. Ladygin Deputies: N. M. Piskunov R. A. Shindin
		02-1-1097-1-2010/2024 ALPOM-2	N. M. Piskunov Deputies: E. Tomasi-Gustafsson Ch. Punjabi V. Perdrisat	Continue the project until the end of 2027 (59th session of the PAC on PP, STC Laboratory).
		02-1-1097-2-2010/2024 DSS	V.P. Ladygin	Continue the project until the end of 2027 (59th session of the PAC on PP, STC Laboratory).
7.	VBLHEP	02-1-1086-2009 Strangeness in Hadronic Matter and Study of inelastic reactions near kinematic borders	E. A. Strokovsky E. S. Kokoulina D. O. Krivenkov	
		<b>New project</b> 02-1-1086-1-2025/2029 HyperNuclear Intrinsic Strangeness and Short-Range Correlations (HyperNIS+SRC)		<b>Open a new project</b> until the end of 2029 (59th session of the PAC on PP, STC Laboratory). Project leaders: D. O. Krivenkov Yu. Lukstins
8.	VBLHEP	<b>New theme</b> 02-1-1150-2025 Fundamental and applied physics research with relativistic electron beams		<b>Open a new theme</b> (STC Laboratory). Theme leader: A. A. Baldin
		<b>New project</b> 02-1-1150-1-2025/2029 Fundamental and applied research with beams of relativistic accelerated electrons (FLAP)		<b>Open a new project</b> until the end of 2029. Project leader: A. A. Baldin Deputy: V. V. Bleko (STC Laboratory).

### Neutrino physics and astrophysics

No. pp	Laboratory	Theme and project code Name of theme and project	Theme and project leader	Proposals of the PAC and STC Laboratory for 2025
9	DLNP	02-2-1144-2021 Search for new physics in the lepton sector	Z. Tsamalaidze	
		02-2-1144-1-2021/2024 COMET	Z. Tsamalaidze	Continue the project until the end of 2029 (STC Laboratory).

### Nuclear Physics (03)

№№ пп	Лаборатория	Шифр темы и проекта Наименование темы и проекта	Руководитель темы и проекта	Предложения ПКК и НТС Лаборатории на 2025 г.
10.	DLNP	03-2-1100-2010 Non-Accelerator Neutrino Physics and Astrophysics	E. A. Yakushev S. Rozov	
		<b><u>New activity</u></b> Development of low-temperature detection systems for the study of coherent elastic scattering of neutrinos on atoms and nuclei and measurement of electromagnetic characteristics of neutrinos		<b>Open a new activity</b> until the end of 2025 Project leader: V. N. Trofimov

### Applied Innovation Activity (07)

No. pp	Laboratory	Theme and project code Name of theme and project	Theme and project leader	Proposals of the PAC and STC Laboratory for 2025
11.	FLNR	07-5-1131-2017 Radiation materials science, nanotechnological and biomedical investigations with heavy-ion beams	S. N. Dmitriev P. Yu. Apel	
		<b><u>New project</u></b> 07-5-1131-3-2025/2029 High-sensitivity sensor based on molecular recognition for viruses detection		<b>Open a new project</b> until the end of 2029 Project leaders: A. N. Nechaev E. G. Zavyalova (STC Laboratory).

### Physics and Technology of Charged Particle Accelerators (08)

No. pp	Laboratory	Theme and project code Name of theme and project	Theme and project leader	Proposals of the PAC and STC Laboratory for 2025
12.	DLNP	08-2-1127-2016 Advanced Studies of Systems of New-Generation Accelerators and Colliders for Fundamental and Applied Research	G. V. Trubnikov G. D. Shirkov B. N. Gikal	
		08-2-1127-1-2024/2024 MSC-230	G. A. Karamysheva S. L. Yakovenko	Continue the project.



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