PROPOSALS FOR THEMES AND PROJECTS IN THE TOPICAL PLAN FOR JINR RESEARCH AND INTERNATIONAL COOPERATION FOR 2025

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

JINR Large Research Infrastructure

No. pp	Laboratory	Name of the JINR Large Research Infrastructure, projects and subprojects for 2024	Leader of the LRI, project and subprojects	Recommendations of the PACs (January, June 2024) Proposal of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
1.	VBLHEP	02-1-1065-2007/2026 NICA Complex: Design and Construction of the Complex of Accelerators, Collider and Physics Experimental Facilities at Extracted and Colliding Ion Beams Aimed at Studying Dense Baryonic Matter and the Spin Structure of Nucleons and Light Ions, and at Carrying out Applied and Innovation Projects	V. D. Kekelidze A. S. Sorin G. V. Trubnikov *Deputies:* A. V. Butenko V. M. Golovatyuk M. N. Kapishin	Continue work on the LRI until the end of 2026.	Continue work on the LRI until the end of 2026.
		Project 02-1-1065-1-2011/2024 NUCLOTRON-NICA	A. V. Butenko G. G. Khodzhibagiyan *Scientific leader:* I. N. Meshkov	Extend the project until the end of 2027 *(60th session of the PAC for PP).*	Extend the project until the end of 2027.
		Project 02-1-1065-2-2012/2026 BM@N	M. N. Kapishin	Continue work on the project until the end of 2026.	Continue work on the project until the end of 2026.
		Project 02-1-1065-3-2011/2025 MPD	V. M. Golovatyuk V. D. Kekelidze *Deputy:* V. G. Riabov	Continue work on the project until the end of 2025.	Continue work on the project until the end of 2025.
		Project 02-1-1065-4-2020/2024 SPD	A. V. Guskov *Deputy:* V. P. Ladygin	Extend the project until the end of 2029 *(60th session of the PAC for PP).*	Extend the project until the end of 2029.
2.	DLNP	03-2-1148-2010/2028 Baikal Deep Underwater Gigaton Volume Neutrino Telescope (Baikal-GVD)	I. A. Belolaptikov *Deputy:* S. V. Rozov	Continue work on the LRI until the end of 2028.	Continue work on the LRI until the end of 2028.
		Project 03-2-1148-1-2010/2028 Baikal-GVD	I. A. Belolaptikov *Deputy:* S. V. Rozov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.

No. pp	Labora-tory	Name of the JINR Large Research Infrastructure, projects and subprojects for 2024	Leader of the LRI, project and subprojects	Recommendations of the PACs (January, June 2024) Proposal of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
3.	MLIT	06-6-1118-2014/2030 Multifunctional Information and Computing Complex (MICC)	V. V. Korenkov S. V. Shmatov *Deputies:* A. G. Dolbilov D. V. Podgainy T. A. Strizh	Continue work on the LRI until the end of 2030.	Continue work on the LRI until the end of 2030.
		Project 06-6-1118-1-2014/2030 MICC	V. V. Korenkov S. V. Shmatov *Deputies:* A. G. Dolbilov D. V. Podgainy T. A. Strizh	Continue work on the project until the end of 2030.	Continue work on the project until the end of 2030.
4.	FLNR	03-5-1129-2017/2028 Development of the FLNR Accelerator Complex and Experimental Setups (DRIBs-III)	I. V. Kalagin S. I. Sidorchuk *Deputies:* V. A. Semin A. V. Eremin *Scientific leader:* Yu. Ts. Oganessian	Continue work on the LRI until the end of 2028. *Leaders:* I. V. Kalagin S. I. Sidorchuk *Deputies:* V. A. Semin *Scientific leader:* Yu. Ts. Oganessian	Continue work on the LRI until the end of 2028. *Leaders:* I. V. Kalagin S. I. Sidorchuk *Deputies:* V. A. Semin *Scientific leader:* Yu. Ts. Oganessian
		Project 03-5-1129-1-2024/2028 Construction of the U-400R accelerator complex	I. V. Kalagin A. G. Popeko *Deputies:* V. A. Semin A. V. Eremin	Continue work on the project until the end of 2028. *Leaders:* I. V. Kalagin A. G. Popeko *Deputies:* V. A. Semin	Continue work on the project until the end of 2028. *Leaders:* I. V. Kalagin A. G. Popeko *Deputies:* V. A. Semin
		Project 03-5-1129-2-2024/2028 Development of the experimental setups to study the chemical and physical properties of superheavy elements	A. V. Eremin *Deputy:* A. M. Rodin	Continue work on the project until the end of 2028. *Leader:* S. I. Sidorchuk *Deputy:* A. M. Rodin	Continue work on the project until the end of 2028. *Leader:* S. I. Sidorchuk *Deputy:* A. M. Rodin
5.	FLNP	04-4-1149-2024/2028 Pulsed Neutron Source and Complex of Spectrometers	E. V. Lychagin	Continue work on the LRI until the end of 2028.	Continue work on the LRI until the end of 2028.
		Project 04-4-1149-1-2011/2028 Development of the IBR-2 nuclear facility with a complex of cryogenic moderators	A. V. Vinogradov A. V. Dolgikh	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Subproject 04-4-1149-1-1-2014/2025 Construction of a complex of cryogenic moderators at the IBR-2 facility	A. A. Belyakov M. V. Bulavin	Continue work on the subproject until the end of 2025.	Continue work on the subproject until the end of 2025.
		Project 04-4-1149-2-2021/2028 Investigations of functional materials and nanosystems using neutron scattering	D. P. Kozlenko V. L. Aksenov A. M. Balagurov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Subproject 04-4-1149-2-1-2024/2028 Study of structure and dynamics of functional materials and nanosystems at the IBR-2 spectrometer complex	D. P. Kozlenko *Deputies:* M. V. Avdeev G. D. Bokuchava	Continue work on the subproject until the end of 2028.	Continue work on the subproject until the end of 2028.

	Subproject 04-4-1149-2-2-2021/2028 Development of an inelastic neutron scattering spectrometer in inverse geometry BJN (Bajorek–Janik–Natkaniec) at the IBR-2 reactor	D. M. Chudoba	Continue work on the subproject until the end of 2028.	Continue work on the subproject until the end of 2028.
	Project 04-4-1149-3-2021/2028 Scientific and methodological research and developments for condensed matter investigations with IBR-2 neutron beams	V. I. Bodnarchuk V. I. Prikhodko	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
	Subproject 04-4-1149-3-1-2021/2028 Construction of a wide-aperture backscattering detector (BSD-A) for the HRFD diffractometer	V. M. Milkov	Continue work on the subproject until the end of 2028.	Continue work on the subproject until the end of 2028.
	Subproject 04-4-1149-3-2-2024/2028 Vector magnet for the work with polarized neutrons	A. N. Chernikov	Continue work on the subproject until the end of 2028.	Continue work on the subproject until the end of 2028.
	Subproject 04-4-1149-3-3-2024/2028 Design and development of infrastructure elements for spectrometers at the IBR-2 reactor	V. I. Bodnarchuk	Continue work on the subproject until the end of 2028.	Continue work on the subproject until the end of 2028.
	Project 04-4-1149-4-2021/2028 New advanced neutron source at JINR	E. V. Lychagin V. N. Shvetsov M. V. Bulavin	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
	Subproject 04-4-1149-4-1-2024/2028 Research and development for the justification of the draft design of the new advanced neutron source at JINR– NEPTUNE pulsed fast reactor	E. V. Lychagin V. N. Shvetsov M. V. Bulavin	Continue work on the subproject until the end of 2028.	Continue work on the subproject until the end of 2028.

Theoretical Physics (01)

No. pp	Labora-tory	Name of the themes and projects for 2024	Leader of the themes and projects	Recommendations of the PACs (January, June 2024) Proposals of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
6.	BLTP	01-3-1135-2019 Fundamental Interactions of Fields and Particles	D. I. Kazakov O. V. Teryaev	Continue work on the theme.	Continue work on the theme.
		Project 01-3-1135-1-2024/2028 Quantum field theory and physics beyond the standard model	D. I. Kazakov A. V. Bednyakov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project 01-3-1135-2-2024/2028 QCD and hadron structure	I. V. Anikin S. V. Mikhailov O. V. Teryaev	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project 01-3-1135-3-2024/2028 Phenomenology of strong interactions and precision physics	V. I. Korobov M. A. Ivanov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project 01-3-1135-4-2024/2028 Theory of hadronic matter under extreme conditions	V. V. Braguta E. E. Kolomeytsev S. N. Nedelko	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project Theory of electroweak interactions and neutrino physics	A. B. Arbuzov V A. Naumov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.

7. BLTP	01-3-1136-2019 Theory of Nuclear Systems	N. V. Antonenko A. A. Dzhioev S. N. Ershov	Continue work on the theme.	Continue work on the theme.
	Project 01-3-1136-1-2024/2028 Microscopic models for exotic nuclei and nuclear astrophysics	V. V. Voronov A. A. Dzhioev	Continue work on the project until the end of 2028. *Leader:* A. A. Dzhioev	Continue work on the project until the end of 2028. *Leader:* A. A. Dzhioev
	Project 01-3-1136-2-2024/2028 Low-energy nuclear dynamics and properties of nuclear systems	S. N. Ershov N. V. Antonenko	Continue work on the project until the end of 2028. *Leaders:* S. N. Ershov G. G. Adamian	Continue work on the project until the end of 2028. *Leaders:* S. N. Ershov G. G. Adamian
	Project 01-3-1136-3-2024/2028 Quantum few-body systems	A. K. Motovilov V. S. Melezhik	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
	Project 01-3-1136-4-2024/2028 Relativistic nuclear dynamics and nonlinear quantum processes	S. G. Bondarenko A. B. Larionov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
8. BLTP	01-3-1137-2019 Theory of Complex Systems and Advanced Materials	V. A. Osipov A. M. Povolotsky	Continue work on the theme.	Continue work on the theme.
	Project 01-3-1137-1-2024/2028 Complex materials	E. M. Anitsash	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
	Project 01-3-1137-2-2024/2028 Mathematical models of statistical physics of complex systems	A. M. Povolotsky	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
	Project 01-3-1137-3-2024/2028 Nanostructures and nanomaterials	V. A. Osipov E. A. Kochetov	Continue work on the project until the end of 2028. *Leaders:* V. A. Osipov V. I. Katkov	Continue work on the project until the end of 2028. *Leaders:* V. A. Osipov V. I. Katkov
	Project 01-3-1137-4-2024/2028 Quantum field theory methods in complex systems	M. Hnatič	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
9. BLTP	01-3-1138-2019 Modern Mathematical Physics: Integrability, Gravity and Supersymmetry	A. P. Isaev S. O. Krivonos	Continue work on the theme.	Continue work on the theme.
	Project 01-3-1138-1-2024/2028 Integrable systems and symmetries	A. P. Isaev S. O. Krivonos N. A. Tyurin	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
	Project 01-3-1138-2-2024/2028 Supersymmetry, higher spins, gravity	E. A. Ivanov *Deputy:* S A. Fedoruk	Continue work on the project until the end of 2028. *Leaders:* E. A. Ivanov S A. Fedoruk	Continue work on the project until the end of 2028. *Leaders:* E. A. Ivanov S A. Fedoruk
	Project 01-3-1138-3-2024/2028 Quantum gravity, cosmology and strings	I. G. Pirozhenko D. V. Fursaev	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.

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

Participation in international experiments

No. pp	Labora-tory	Name of the themes and projects for 2024	Leader of the themes and projects	Recommendations of the PACs (January, June 2024) Proposals of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
10.	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	Continue work on the theme.	Continue work on the theme.
		Project 02-1-1066-1-2010/2024 STAR	Yu. A. Panebrattsev R. Lednicki	Extend the project until the end of 2029 *(60th session of the PAC for PP).*	Extend the project until the end of 2029 *(60th session of the PAC for PP).*
11.	DLNP VBLHEP	02-2-1081-2009 ATLAS. Upgrade of the ATLAS Detector and Physics Research at the LHC	V. A. Bednyakov	Continue work on the theme. *Leaders:* V. A. Bednyakov I. V. Yeletskikh	Continue work on the theme. *Leaders:* V.A. Bednyakov I.V. Yeletskikh
		Project 02-2-1081-1-2010/2025 ATLAS. Physical research at the LHC	V. A. Bednyakov E. V. Khramov	Continue work on the project until the end of 2025. *Leaders:* V. A. Bednyakov I. V. Yeletskikh	Continue work on the project until the end of 2025. *Leaders:* V.A. Bednyakov I.V. Yeletskikh
		Project 02-1-1081-2-2013/2025 Upgrade of the ATLAS detector	A. P. Cheplakov	Continue work on the project until the end of 2025. *Leaders:* A. P. Cheplakov I. V. Yeletskikh	Continue work on the project until the end of 2025. *Leaders:* A. P. Cheplakov I.V. Yeletskikh
12.	VBLHEP	02-1-1083-2009 CMS. Compact Muon Solenoid at LHC	V. Yu. Karjavin *Scientific lider:* V. A. Matveev	Continue work on the theme.	Continue work on the theme.
		Project 02-1-1083-1-2010/2025 CMS. Physical researches at the LHC	V. Yu. Karjavin	Continue work on the project until the end of 2025.	Continue work on the project until the end of 2025.
		Project 02-1-1083-2-2010/2026 Upgrading the CMS detector	V. Yu. Kajhavin	Continue work on the project until the end of 2026.	Continue work on the project until the end of 2026.
13.	DLNP	02-2-1085-2009 Experimental Test of the Fundamental of QCD	A. V. Guskov *Deputy:* A. S. Zhemchugov	Continue work on the theme.	Continue work on the theme.
		Project 02-2-1085-1-2007/2028 BESIII	I. I. Denisenko *Deputy:* A. S. Zhemchugov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project 02-2-1085-2-2024/2026 Study of the fundamental properties of hadrons in the NA66/AMBER experiment	A. V. Guskov	Continue work on the project until the end of 2026.	Continue work on the project until the end of 2026.
14.	VBLHEP	02-1-1087-2009 Research on Relativistic Heavy and Light Ion Physics. Experiments at the Accelerator Complex Nuclotron–NICA at JINR and CERN SPS	A. I. Malakhov S. V. Afanasyev	Continue work on the theme.	Continue work on the theme.
		Project 02-1-1087-1-2022/2024 NA61/SHINE	A. I. Malakhov *Deputies:* A. V. Dmitriev A. A. Zajtsev	Extend the project until the end of 2029 *(60th session of the PAC for PP).*	Extend the project until the end of 2029.

	Activity SCAN-3 Creation of a precision magnetic spectrometer SCAN-3 and research of non nucleon degrees of freedom in nuclei, nucleon correlations and nuclear fragmentation at the internal target of the Nuclotron	S. V. Afanasyev D. K. Dryablov	SCAN-3 Transfer from activity. ***Project*** 02-1-1087-2-2017/2027 Work to the project will be carried out until the end of 2027 *(59th session of the PAC for PP).*	SCAN-3 Transfer from activity. Work to the project will be carried out until the end of 2027.
15. VBLHEP	02-1-1088-2009 ALICE. Study of Interactions of Heavy Ion and Proton Beams at the LHC	A. S. Vodopyanov	Continue work on the theme.	Continue work on the theme.
	Project 02-1-1088-1-2010/2025 ALICE	A. S. Vodopyanov	Continue work on the project until the end of 2025.	Continue work on the project until the end of 2025.
16. VBLHEP	02-1-1096-2010 Study of Rare Charged Kaon Decays and Search for Dark Sector in Experiments at the CERN SPS	V. D. Kekelidze *Deputies:* D. V. Peshekhonov D. T. Madigozhin	Continue work on the theme.	Continue work on the theme.
	Project 02-1-1096-1-2010/2024 NA62	V. D. Kekelidze *Deputy:* D. T. Madigozhin	Extend the project until the end of 2027 *(60th session of the PAC for PP).*	Extend the project until the end of 2027.
	Project 02-1-1096-2-2017/2026 NA64	V. A. Matveev D. V. Peshekhonov	Continue work on the project until the end of 2026.	Continue work on the project until the end of 2026.
17. DLNP	***New theme*** Development of Advanced Detectors and Analysis Methods, Hadronic and Rare Leptonic Processes		**Open a new theme.** 02-2-1151-2025 *Leader:* Yu. I. Davydov	**Open a new theme.** *Leader:* Yu. I. Davydov
	New project Development of a particle registration technique in future experiments with the participation of JINR		**Open a new project** until the end of 2025. 02-2-1151-1-2025/2025 *Leader:* Yu. I. Davydov *Deputy:* Yu. A. Kulchitsky *(60th session of the PAC for PP).*	**Open a new project** until the end of 2025. *Leader:* Yu. I. Davydov *Deputy:* Yu. A. Kulchitsky

Experiments at the NICA accelerator complex

No. pp	Labora-tory	Name of the themes and projects for 2024	Leader of the themes and projects	Recommendations of the PACs (January, June 2024) Proposals of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
18.	VBLHEP	02-1-1086-2009 Strangeness in Hadronic Matter and Study of Inelastic Reactions Near Kinematic Boundaries	E. A. Strokovsky E. S. Kokoulina D. O. Krivenkov	Continue work on the theme.	Continue work on the theme.
		New project Strangeness in hypernuclei and short-range two-nucleon correlations (HyperNIS+SRC)		**Open a new project** until the end of 2029. 02-1-1086-1-2025/2029 *Leaders:* D. O. Krivenkov Yu. Lukstins *(59th session of the PAC for PP).*	**Open a new project** until the end of 2029. *Leaders:* D. O. Krivenkov Yu. Lukstins

No. pp	Labora-tory	Name of the themes and projects for 2024	Leader of the themes and projects	Recommendations of the PACs (January, June 2024) Proposals of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
19.	VBLHEP	02-1-1097-2010 Study of Polarization Phenomena and Spin Effects at the JINR Nuclotron-M/NICA Facility	E. A. Strokovsky *Deputies:* I. M. Piskunov V. P. Ladygin R. A. Shindin	Continue work on the theme. *Leaders:* E. A. Strokovsky V. P. Ladygin *Deputies:* I. M. Piskunov R. A. Shindin	Continue work on the theme. *Leaders:* E. A. Strokovsky V. P. Ladygin *Deputies:* I. M. Piskunov R. A. Shindin
		Project 02-1-1097-1-2010/2024 ALPOM-2	N. M. Piskunov *Deputies:* E. Tomasi-Gustafsson Ch. Perdrisat V. Punjabi	Extend the project until the end of 2027 *(59th session of the PAC for PP).*	Extend the project until the end of 2027.
		Project 02-1-1097-2-2010/2024 DSS	V. P. Ladygin	Extend the project until the end of 2027 *(59th session of the PAC for PP).*	Extend the project until the end of 2027.
20.	VBLHEP	***New theme*** Fundamental and Applied Physics Research with Relativistic Particle Beams		**Open a new theme** 02-1-1150-2025 *Leader:* A. A. Baldin	**Open a new theme.** *Leader:* A. A. Baldin
		New project Fundamental and applied research with beams of relativistic accelerated electrons (FLAP)		**Open a new project** until the end of 2029. 02-1-1150-1-2025/2029 *Leaders:* A.A. Baldin *Deputy:* Vit.V. Bleko *(59th session of the PAC for PP).*	**Open a new Project** until the end of 2029. *Leaders:* A.A. Baldin *Deputy:* Vit.V. Bleko

Neutrino physics and astrophysics

No. pp	Labora-tory	Name of the themes and projects for 2024	Leader of the themes and projects	Recommendations of the PACs (January, June 2024) Proposals of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
21.	DLNP	02-2-1099-2010 Study of Neutrino Oscillations and Astrophysical Research	D. V. Naumov A. G. Olshevsky	Continue work on the theme.	Continue work on the theme.
		Project 02-2-1099-1-2009/2026 JUNO	D. V. Naumov *Deputies:* N. V. Anfimov M. O. Gonchar	Continue work on the project until the end of 2026.	Continue work on the project until the end of 2026.
		Project 02-2-1099-2-2015/2026 NOvA/DUNE	A. G. Olshevsky *Deputies:* N. V. Anfimov O. B. Samoilov	Continue work on the project until the end of 2026.	Continue work on the project until the end of 2026.
		Project 02-2-1099-3-2015/2026 TAIGA	A. N. Borodin *Deputy:* L. G. Tkachev	Continue work on the project until the end of 2026.	Continue work on the project until the end of 2026.
22.	DLNP	02-2-1144-2021 Search for New Physics in the Lepton Sector	Z. Tsamalaidze	Continue work on the theme.	Continue work on the theme.
		Project 02-2-1144-1-2021/2024 COMET	Z. Tsamalaidze	Extend the project until the end of 2029 *(60th session of the PAC for PP).*	Extend the project until the end of 2029

Nuclear Physics (03)

No. pp	Labora-tory	Name of the themes and projects for 2024	Leader of the themes and projects	Recommendations of the PACs (January, June 2024) Proposals of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
23.	FLNP	03-4-1146-2024 Neutron Nuclear Physics	Yu. N. Kopach P. V. Sedyshev V. N. Shvetsov	Continue work on the theme.	Continue work on the theme.
		Project 03-4-1146-1-2014/2028 Development and elaboration of the tagged neutron method for determining the elemental structure of matter and studying nuclear reactions (TANGRA – Tagged Neutrons and Gamma Rays)	Yu. N. Kopach	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project 03-4-1146-2-2022/2026 Modernization of the EG-5 accelerator and its experimental infrastructure	A. S. Doroshkevich	Continue work on the project until the end of 2026.	Continue work on the project until the end of 2026.
		Project 03-4-1146-3-2024/2028 Investigation of neutron nuclear interactions and properties of the neutron	V. N. Shvetsov P. V. Sedyshev	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
24.	FLNR	03-5-1130-2017 Synthesis and Properties of Superheavy Elements, Structure of Nuclei at the Limits of Nucleon Stability	S. I. Sidorchuk *Deputy:* A. V. Karpov *Scientific leader:* Yu. Ts. Oganessian	Continue work on the theme.	Continue work on the theme.
		Project 03-5-1130-1-2024/2028 Investigation of heavy and superheavy elements	M. G. Itkis A. V. Karpov	Continue work to the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project 03-5-1130-2-2024/2028 Light exotic nuclei at the borders of nucleon stability	G. Kaminski S. Sidorchuk *Deputies:* V. Chudoba A. S. Fomichev	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
25.	DLNP	03-2-1100-2010 Non-Accelerator Neutrino Physics and Astrophysics	E. A. Yakushev S. V. Rozov	Continue work on the theme.	Continue work on the theme.
		Project 03-2-1100-1-2024/2028 Radiochemistry and spectroscopy for astrophysics and nuclear medicine	D. V. Filosofov *Deputies:* A. Baimukhanova A. I. Velichkov Yu. B. Gurov A. Kh. Inyatov D. V. Karaivanov Zh. Kh. Khushvaktov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project 03-2-1100-2-2024/2028 Investigations of reactor neutrinos on a short baseline	I. V. Zhitnikov *Deputies:* M. Shirchenko A. V. Lubashevskiy S. V. Rozov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project 03-2-1100-3-2024/2028 Nuclear spectrometry for the search and investigation of rare phenomena	D. R. Zinatulina *Deputies:* K. N. Gusev N. I. Rukhadze O. I, Kochetov S. V. Rozov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.

Condensed Matter Physics (04)

No. pp	Laboratory	Name of the themes and projects for 2024	Leader of the themes and projects	Recommendations of the PACs (January, June 2024) Proposals of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
26.	FLNP	04-4-1147-2024 Optical Methods in Condensed Matter Studies	G. M. Arzumanyan N. Kucherka Deputy: K. Z. Mamatkulov	Continue work on the theme.	Continue work on the theme.
		Project 04-4-1147-1-2024/2028 NANABIOPHATONICS	G. M. Arzumanyan K. Z. Mamatkulov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.

Radiation Research in Life Sciences (05)

No. pp	Laboratory	Name of the themes and projects for 2024	Leader of the themes and projects	Recommendations of the PACs (January, June 2024) Proposals of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
27.	LRB	05-7-1077-2009 Research on the Biological Effects of Ionizing Radiations with Different Physical Characteristics	A. N. Bugay E. A. Krasavin	Continue work on the theme.	Continue work on the theme.
		Project 05-7-1077-1-2024/2028 Molecular, genetic and organismal effects of ionizing radiation with different physical characteristics	A. V. Boreyko P. N. Lobachevsky	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project 05-7-1077-2-2024/2028 Radiation-biophysical and astrobiological research	A. V. Chizhov A. Yu. Rozanov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
28.	DLNP	05-2-1132-2017 Study of Molecular Genetic Mechanisms of Adaptations of Extremophilic Organisms	E. V. Kravchenko	Continue work on the theme.	Continue work on the theme.
		Project 05-2-1132-1-2021/2028 Protection against physical and chemical stresses with tardigrade proteins (TARDISS)	E. V. Kravchenko	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.

Information Technology (06)

No. pp	Laboratory	Name of the themes and projects for 2024	Leader of the themes and projects	Recommendations of the PACs (January, June 2024) Proposals of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
29.	MLIT	06-6-1119-2014 Methods, Algorithms and Software for Modeling Physical Systems, Mathematical Processing and Analysis of Experimental Data	S. V. Shmatov O. Chuluunbaatar *Deputies:* N. N. Voytishin P. V. Zrelov	Continue work on the theme.	Continue work on the theme.
		Project 06-6-1119-1-2024/2026 Mathematical methods, algorithms and software for modeling physical processes and experimental facilities, processing and analyzing experimental data	S. V. Shmatov *Deputies:* A. S. Ayriyan N. N. Voytishin	Continue work on the project until the end of 2026.	Continue work on the project until the end of 2026.
		Project 06-6-1119-2-2024/2026 Methods of computational physics for studying complex systems	E. V. Zemlyanaya O. Chuluunbaatar *Deputies:* Yu. L. Kalinovsky A. Khvedelidze	Continue work on the project until the end of 2026.	Continue work on the project until the end of 2026.

Applied Innovation Activity (07)

No. pp	Labora-tory	Name of the themes and projects for 2024	Leader of the themes and projects	Recommendations of the PACs (January, June 2024) Proposals of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
30.	VBLHEP	07-1-1107-2011 Applied Research at NICA in Radiation Materials Science, Life Sciences and New Methods of Energy Production	O. V. Belov E. M. Syresin	Continue work on the theme.	Continue work on the theme.
		Project 07-1-1107-1-2011/2027 Accelerator driven subcritical reactor (ADSR)	S. I. Tyutyunnikov M. Paraipan	Continue work on the project until the end of 2027.	Continue work on the project until the end of 2027.
31.	FLNR	07-5-1131-2017 Radiation Materials Science, Nanotechnological and Biomedical Investigations with Heavy-Ion Beams	S. N. Dmitriev P. Yu. Apel *Deputy:* V. A. Skuratov	Continue work on the theme.	Continue work on the theme.
		Project 07-5-1131-1-2024/2028 Radiation resistance of materials to high-intensity beams of heavy ions	V. A. Skuratov *Deputy:* R. A. Rymzhanov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project 07-5-1131-2-2024/2028 Nanocomposite and functional track etched membranes	P. Yu. Apel *Deputy:* A. N. Nechaev	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		New project High-sensitivity sensor based on molecular recognition for viruses detection		**Open a new project** until the end of 2029. 07-5-1131-3-2025/2029 *Leaders:* A. N. Nechaev E. G. Zavyalova *(59th session of the PAC for CMP)*	**Open a new project** until the end of 2029. *Leaders:* A. N. Nechaev E. G. Zavyalova

Physics and Technology of Charged Particle Accelerators (08)

No. pp	Labora-tory	Name of the themes and projects for 2024	Leader of the themes and projects	Recommendations of the PACs (January, June 2024) Proposals of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
32.	DLNP	08-2-1126-2015 Development of Scientific DLNP Infrastructure for Research Using Semiconductor Detectors, Laser Metrology, Electrons, Positrons and Cryogenic Technology	V. V. Glagolev G. A. Shelkov *Deputy:* V. V. Tereshchenko	Continue work on the theme.	Continue work on the theme.
		Project 08-02-1126-1-2024/2028 Design and development of a test zone for methodological studies of detectors at a linear electron accelerator LINAC-200 in the DLNP	M. I. Gostkin *Deputy:* E. S. Abdelshakur	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project 08-2-1126-2-2016/2028 Precision laser metrology for accelerators and detectors complexes	V. V. Glagolev M. V. Lyablin	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
		Project 08-2-1126-3-2016/2028 Development of experimental technique and applied research with slow monochromatic positron beams (PAS)	A. A. Sidorin *Scientific leader:* I. N. Meshkov	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.

		Project 08-2-1126-4-2015/2028 Novel semiconductor detectors for fundamental and applied research	G. A. Shelkov *Deputy:* V. A. Rozhkov	Continue work on the project until the end of 2028. *Deputies:* V. A. Rozhkov V. V. Tereschenko	Continue work on the project until the end of 2028. *Deputies:* V. A. Rozhkov V. V. Tereschenko
		Project 08-2-1126-5-2011/2028 GDH & SPASCHARM	Yu. A. Usov *Deputy:* Yu. A. Plis	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
33.	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	Continue work on the theme.	Continue work on the theme.
		Project 08-2-1127-1-2024/2024 Creation of test benches for testing individual systems of the MSC-230 cyclotron	G. A. Karamysheva S. L. Yakovenko	Extend the project until the end of 2025.	Extend the project until the end of 2025.

Organization of Scientific Activities and International Cooperation. Strengthening Human Resources. Educational Program (09)

No. pp	Labora-tory	Name of the themes and projects for 2024	Leader of the themes and projects	Recommendations of the PACs (January, June 2024) Proposals of the STC and the Directorate of a Laboratory for 2025	JINR Directorate's proposal
34.	DSOA	09-8-1037-2001 Analytical and Methodological Developments for the Organization of Scientific Research and International Cooperation in the Main Directions of JINR Development	V. A. Matveev S. N. Nedelko O. -A. Kulikov	Continue work on the theme.	Continue work on the theme.
35.	UC	09-9-1139-2019 Scientific and Educational Programmes for the Training of Highly Qualified Personnel	D. V. Kamanin A. Yu. Verkheev	Continue work on the theme.	Continue work on the theme.
		Project 09-9-1139-1-2021/2028 Open information and educational environment for supporting fundamental and applied multidisciplinary research at JINR	Yu. A. Panebrattsev	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.
36.	BLTP	09-3-1117-2014 Dubna International Advanced School of Theoretical Physics (DIAS-TH)	I. G. Pirozhenko *Rector of DIAS-TH:* D. I. Kazakov	Continue work on the theme.	Continue work on the theme.
		Project 09-3-1117-1-2024/2028 Dubna international advanced school of theoretical physics (DIAS-TH)	D. I. Kazakov I.G. Pirozhenko	Continue work on the project until the end of 2028.	Continue work on the project until the end of 2028.

Chief Scientific Secretary S. N. Nedelko