Material for the 130th Session of the JINR Scientific Council (September 2021)



PROPOSALS FOR THE PREPARATION OF THE JINR TOPICAL PLAN OF RESEARCH FOR 2022

The total number of themes in the 2021 Topical Plan is 42, including 7 themes and 21 projects concluding in the year 2021.

Theoretical Physics (01)

| NºNº | Laboratory | Theme code Theme title Project title | Priority in 2021 | Theme (project) leader | Recommendation of the PACs (January, June, July 2021) Proposals by STC of Laboratory and Laboratory Directorate | Proposals by JINR Directorate |
|------|------------|--|---------------------|--|---|---|
| . 1. | BLTP | 01-3-1135-2019/2023 Fundamental Interactions of Fields and Particles | | D. Kazakov O. Teryaev | • | |
| 2. | BLTP | 01-3-1136-2019/2023 Theory of Nuclear Systems | | N. Antonenko S. Ershov A. Dzhioev | | |
| 3. | BLTP | 01-3-1137-2019/2023 Theory of Complex Systems and Advanced Materials | I | V. Osipov A.M. Povolotskii | 8 | |
| 4. | BLTP | 01-3-1138-2019/2023 Modern Mathematical Physics: Gravity, Supersymmetry and Strings | 1 | A. Isaev S. Krivonos A. Sorin Scientific leader: A. Filippov | Theme leaders: A. Isaev S. Krivonos A. Sorin (Laboratory Directorate) | To approve the list of the Theme Leaders. |
| 5. | BLTP | 01-3-1117-2014/2023 Dubna International Advanced School of Theoretical Physics (DIAS-TH) | 1 | V. Voronov A. Sorin DIAS-TH Rector: A. Filippov | Theme leaders: V. Voronov DIAS-TH Rector: D. Kazakov (Laboratory Directorate) | To approve the list of the Theme Leaders. |

Elementary Particle Physics and Relativistic Nuclear Physics (02)

| NºNº | Laboratory | Theme code Theme title Project title (timescales) | Priority in 2021 | Theme (project) leader | Recommendation of the PACs (January, June, July 2021) Proposals by STC of Laboratories and Laboratories Directorate | Proposals by JINR Directorate |
|------|-------------------|---|---------------------|---|--|----------------------------------|
| 6. | DLNP | 02-2-1123-2015/2022 Study of Fundamental Interactions in e ⁺ e ⁻ Collisions | Į. | A. Zhemchugov Deputy: A. Guskov | | |
| | | BES-III-(2007-2022) | 2 | A. Zhemchugov | | |
| | | ARIeL: Physics at future e*e-colliders (2019-2021) | 3 | L. Kalinovskaya | The PAC takes note of the written report (55th meeting of the PAC for PP). To close the project (STC of Laboratory). | To close the project. |
| 7. | All-JINR theme | 02-0-1081-2009/2024 ATLAS. Upgrade of the ATLAS Detector and Physics Research at the LHC | 1 | V. Bednyakov Deputies: E. Khramov A. Cheplakov | | |
| | | ATLAS. Physics (2010–2023) | 1 | V. Bednyakov Deputies: E. Khramov A. Cheplakov | | |
| | | Upgrade of the ATLAS detector (2013–2023) | 1 | A. Cheplakov | | |

| NºNº | Laboratory | Theme code Theme title Project title (timescales) | Priority in 2021 | Theme (project) leader | Recommendation of the PACs (January, June, July 2021) Proposals by STC of Laboratories and Laboratories Directorate | Proposals by JINR Directorate |
|------|-------------------|---|---------------------|--|--|---|
| 8. | DLNP | 02-2-1144-2021/2023 Search for new physics in the charged lepton sector | l | V. Glagolev Z. Tsamalaidze Deputies: Yu. Davydov N. Khomutov Scientific leader: J. Budagov | Theme leaders: V. Glagolev Z. Tsamalaidze Scientific leader: J. Budagov (Laboratory Directorate) | To approve the list of the Theme Leaders. |
| | | COMET (2015– 2021) | 1 | Z. Tsamalaidze | To extend the project until the end of 2023 (the requested period is till 2024), to assign category "A" to the project (55th meeting of the PAC for PP). To extend the project until the end of 2024 with first priority (STC of Laboratory). | To extend the project until the end of 2023 with first priority. |
| | | New project T2K-II (2022–2024) | | V. Glagolev Yu. Davydov | To open the project until the end of 2023, to assign category "B" to the project (55th meeting of the PAC for PP). To open the project until the end of 2024 with first priority (STC of Laboratory). | To open the project until the end of 2022 with first priority. |
| 9. | DLNP | 02-2-1099-2010/2023 Study of Neutrino Oscillations | 1 | D. Naumov A. Olshevskiy | | |
| | | Daya Bay/JUNO (2009–2023) | 1 | D. Naumov | To assign category "A" to the project (Joint session of the PAC NP and the PAC PP of January 2019). | |
| | | NovA/DUNE (2015–2023) | 1 | A. Olshevskiy | To assign category "A" to the project (Joint session of the PAC NP and the PAC PP of January 2019). | |
| 10. | All-JINR theme | 02-0-1108-2011/ 2021 Experiment PANDA at FAIR | 1 | G. Alexeev Deputy: A. Skachkova | To extend the theme until the end of 2024with priority I (STC of Laboratory). | To extend the theme until the end of 2023 with priority I. |
| | | New project Experiment PANDA at FAIR (2022–2024) | | G. Alexeev Deputy: A. Skachkova | To open the project until the end of 2024 (54th meeting of the PAC for PP). To open the project until the end of 2024 with first priority (STC of Laboratory). | To open the project until the end of 2023 with first priority. |
| 11. | DLNP | 02-2-1125-2015/2023 Astrophysical Studies in the Experiment TAIGA | | A. Borodin Deputy: L. Tkatchev | | |
| | | TAIGA (2015–2023) | 1 | A. Borodin | To assign category "B" to the project (Joint session of the PAC NP and the PAC PP of January 2019). | |

| NºNº | Laboratory | Theme code Theme title Project title (timescales) | Priority in 2021 | Theme (project) leader | Recommendation of the PACs (January, June, July 2021) Proposals by STC* of Laboratories and Laboratories Directorate | Proposals by JINR Directorate |
|------|-------------------|--|---------------------|---|---|--|
| 12. | VBLHEP | 02-1-1106-2011/2022 Investigations of Compressed Baryonic Matter at the GSI Accelerator Complex CBM (2011–2021) | 1 | V. Ladygin V. Ivanov Deputy: O. Derenovskaya | | |
| | | 33.11 (23.11 23.2 1) | 1 | V. Ladygin V. Ivanov | To extend the project until the end of 2025 (54th meeting of the PAC for PP). To extend the project until the end of 2025 with first priority (STC of Laboratory). | To extend the project until the end of 2023 with first priority. |
| | | HADES (2010– 2021) | 2 | V. Ladygin O. Fateev | To extend the project until the end of 2023 (the requested period is till 2024), to assign category "B" to the project (55th meeting of the PAC for PP). To extend the project until the end of 2024 with first priority (STC of Laboratory). | To extend the project until the end of 2022 with first priority. |
| 13. | VBLHEP | 02-1-1096-2010/2022 Study of Rare Charged Kaon Decays and Search for Dark Sector in Experiments at the CERN SPS | L | V. Kekelidze Yu. Potrebenikov Deputy: D. Peshekhonov | Theme leaders: V. Kekelidze Deputies: D. Peshekhonov D. Madigozhin (Laboratory Directorate) | To approve the list of the Theme Leaders. |
| | | NA62 (2010– 2021) | 1 | V. Kekelidze Yu. Potrebenikov | To extend the project until the end of 2023 (the requested period is till 2024), to assign category "B" to the project (55th meeting of the PAC for PP). To extend the project until the end of 2024 with first priority (STC of Laboratory). Project leaders: V. Kekelidze Deputy: D. Madigozhin (Laboratory Directorate) | To extend the project until the end of 2023 with first priority. To approve the list of the Project Leaders. |
| | | NA64 (2017–2023) | 1 | V. Matveev D. Peshekhonov | To assign category "B" to the project (Joint session of the PAC NP and the PAC PP of January 2019). | |
| 14. | All-JINR theme | 02-0-1083-2009/2022 CMS. Compact Muon Solenoid at the LHC | | V. Karjavin Scientific leader: I. Golutvin | | |
| | | CMS (2010–2023) | 1 | V. Karjavin I. Golutvin | | |
| | | New project Upgrade of the CMS detector (2022–2026) | 1 | V. Karjavin I. Golutvin | To open the project until the end of 2023, to assign category "A" to the project (55th meeting of the PAC for PP). To open the project until the end of 2026 with first priority (STC of Laboratory). | To open the project until the end of 2023 with first priority. |

| NºNº | Laboratory | Theme code Theme title Project title (timescales) | Priority in 2021 | Theme (project) leader | Recommendation of the PACs (January, June, July 2021) Proposals by STC of Laboratories and Laboratories Directorate | Proposals by JINR Directorate |
|------|-------------------|--|---------------------|---|--|---|
| 15. | All-JINR theme | 02-0-1085-2009/2022 Studies of the Nucleon and Hadron Structure at CERN | T | A. Nagaytsev Deputy: A. Guskov | aliu Laboratories Directorate | |
| | | COMPASS-II (2011–2022) | 1 | A. Nagaytsev | | |
| 16. | VBLHEP | 02-1-1086-2009/2023 Strangeness in Hadronic Matter and Study of Inelastic Reactions Near Kinematical Borders | | E. Strokovsky E. Kokoulina D. Krivenkov | | |
| | | HyperNIS (2010– 2021) | 1 | E. Strokovsky J. Lukstins D. Krivenkov | The PAC takes note of the written report (55th meeting of the PAC for PP). To close the project (STC of Laboratory). | To close the project. |
| 17. | All-JINR theme | 02-0-1065-2007/2023 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 | I | V. Kekelidze A. Sorin G. Trubnikov Deputies: A. Butenko V. Golovatyuk M. Kapishin | | |
| | 3. 3 | Nuclotron-NICA (2011– 2021) | 1 | A. Butenko G Khodzhibagiyan Scientific leader: I. Meshkov | To extend the project until the end of 2023 (54th meeting of the PAC for PP). To extend the project until the end of 2023 with first priority (STC of Laboratory). | To extend the project until the end of 2023 with first priority. |
| | | BM@N (2012– 2021) | 1 | M. Kapishin | To extend the project until the end of 2023 (the requested period is till 2026), to assign category "A" to the project (55th meeting of the PAC for PP). To extend the project until the end of 2026 with first priority (STC of Laboratory). | To extend the project until the end of 2026 with first priority. |
| | | Subproject SRC: Probing short-range correlations (2018– 2021) | 1 | M. Kapishin E. Piasetzky Deputies: O. Hen T. Aumann | To close the subproject (Laboratory Directorate). | To close the subproject. |
| | , | MPD (2011–2025) | 1 | V. Golovatyuk V. Kekelidze | * | |
| | | Development of the CDR and TDR for the SPD detector at the NICA collider (2020–2021) | 1 | A. Guskov Deputy: V. Ladygin | Designate an appropriate advisory committee for subsequent development of TDR for the SPD (54th meeting of the PAC for PP). To extend the project SPD until the end of 2023 with first priority (Laboratory Directorate). | To extend the project SPD until the end of 2022 with first priority. |

| NºNº | Laboratory | Theme code Theme title Project title (timescales) | Priority in 2021 | Theme (project) leader | Recommendation of the PACs (January, June, July 2021) Proposals by STC of Laboratories and Laboratories Directorate | Proposals by JINR Directorate |
|------|-------------------|--|---------------------|---|--|---|
| 18. | All-JINR theme | 02-1-1127-2016/2023 Advanced Studies on Systems of New- Generation Accelerators and Colliders for Fundamental and Applied Research | ı | G. Shirkov Deputy: J. Budagov | | |
| | | Precision laser metrology for accelerators and detector complexes (2016– 2021) | 2 | J. Budagov M. Lyablin | To extend the project until the end of 2023, to assign category "A" to the project (55th meeting of the PAC for PP). To extend the project until the end of 2023 with first priority (STC of Laboratory). | To extend the project until the end of 2023 with first priority. |
| 19. | VBLHEP | 02-1-1097-2010/ 2021 Study of Polarization Phenomena and Spin Effects at the JINR Nuclotron-M Facility | | E. Strokovsky Deputies: V. Ladygin N. Piskunov R. Shindin | To extend the theme until the end of 2023with Priority I (STC of Laboratory). | To extend the theme until the end of 2023 with priority I. |
| | 7 3 | ALPOM-2 (2010– 2021) | 1 | N. Piskunov | To extend the project until the end of 2023, to assign category "A" to the project (55th meeting of the PAC for PP). To extend the project until the end of 2023 with first priority (STC of Laboratory). | To extend the project until the end of 2023 with first priority. |
| | | DSS (2010– 2021) | 1 | V. Ladygin M. Janek K. Sekiguchi | To extend the project until the end of 2023 (the requested period is till 2024), to assign category "B" to the project (55th meeting of the PAC for PP). To extend the project until the end of 2024 with first priority (STC of Laboratory). | To extend the project until the end of 2023 with first priority. |
| 20. | VBLHEP | 02-1-1087-2009/2023 Research on Relativistic Heavy and Light Ion Physics. Experiments at the Accelerator Complex Nuclotron-NICA at JINR and CERN SPS | 1 | A. Malakhov Deputy: S. Afanasiev | | * |
| | , | NA61 (2012– 2021) | 2 | A. Malakhov | To extend the project until the end of 2023 (the requested period is till 2024), to assign category "B" to the project (55th meeting of the PAC for PP). To extend the project until the end of 2024 with first priority (STC of Laboratory). | To extend the project until the end of 2023 with first priority. |
| | | SCAN-3 (2017–2022) | 1 | S. Afanasiev | | |
| | | | | | | |

| | | New project BECQUEREL | | P. Zarubin | To assign category "C" to the project (53th meeting of the PAC for PP). To open the new project until the end of 2023with first priority (STC of Laboratory). | To open the new project until the end of 2022 with first priority. |
|-----|-------------------|---|---|--------------------------------|--|--|
| 21. | All-JINR theme | 02-0-1066-2007/2023 Investigation of the Properties of Nuclear Matter and Particle Structure at the Collider of Relativistic Nuclei and Polarized Protons | I | R. Lednický Yu. Panebratsev | | |
| | | STAR (2010- 2021) | 1 | Yu. Panebratsev R. Lednický | To extend the project until the end of 2023 (the requested period is till 2024), to assign category "B" to the project (55th meeting of the PAC for PP). To extend the project until the end of 2024 with first priority (STC of Laboratory). | To extend the project until the end of 2023 with first priority. |
| 22. | VBLHEP | 02-1-1088-2009/2022 ALICE. Study of Interactions of Heavy Ion and Proton Beams at the LHC | | A. Vodopyanov | , | |
| | | ALICE (2010–2023) | 1 | A. Vodopyanov | | |
| 23. | VBLHEP | 02-1-1107-2011/2021 Development and Construction of the Prototype of a Complex for Radiotherapy and Applied Research with Heavy-Ion Beams at the Nuclotron-M | I | S. Tyutyunnikov | To extend the theme until the end of 2023 with Priority I (STC of Laboratory). Theme leaders: S. Tyutyunnikov Deputy: A. Baldin (Laboratory Directorate) | To extend the theme until the end of 2023 with Priority I. To approve the list of the Theme Leaders. |
| | | E&T&RM (2018- 2021) | 1 | S. Tyutyunnikov | To extend the project until the end of 2023, to assign category "B" to the project (54th meeting of the PAC for NP). To extend the project until the end of 2023 with first priority (STC of Laboratory). | To extend the project until the end of 2023 with second priority. |

Nuclear Physics (03)

| NºNº | Laboratory | Theme code Theme title Project title (timescales) | Priority in 2021 | Theme (project) leader | Recommendation of the PACs (January, June, July 2021) Proposals by STC of Laboratories and Laboratories Directorate | Proposals by JINR Directorate |
|------|-------------------|---|---------------------|---|---|--|
| 24. | All-JINR theme | 03-0-1129-2017/ 2021 Development of the FLNR Accelerator Complex and Experimental Setups (DRIBS-III) | 1 | G. Gulbekyan S. Dmitriev M. Itkis Scientific leader: Yu. Oganessian | To extend the theme until the end of 2023 with Priority I (54th meeting of the PAC for NP). To extend the theme until the end of 2023 with Priority I. Theme leaders: I. Kalagin S. Dmitriev S. Sidorchuk Scientific leader: Yu. Oganessian (STC of Laboratory). | To extend the theme until the end of 2023 with priority I. To approve the list of the Theme Leaders. |

| | | Construction of a prototype of the initial section of a high-current heavy-ion linear accelerator aimed at producing intense radioactive ion beams for basic research (2020–2021) | 1 | L. Grigorenko T. Kulevoy | The PAC took note on the proposal for the closure of the project. Suggests to consider suspension of this project until the funding issues will be resolved (54th meeting of the PAC f or NP). To close the project (STC of Laboratory). | To close the project. |
|-----|------|---|---|--|--|--|
| 25. | FLNR | 03-5-1130-2017/ 2021 Synthesis and Properties of Superheavy Elements, the Structure of Nuclei at the Limits of Nucleon Stability | I | M. Itkis Scientific leader: Yu. Oganessian | To extend the theme until the end of 2023 with Priority I (54th meeting of the PAC for NP). To extend the theme until the end of 2023 with Priority I. Theme leaders: M. Itkis S. Sidorchuk Scientific leader: Yu. Oganessian (STC of Laboratory). | To extend the theme until the end of 2023 with Priority I. To approve the list of the Theme Leaders. |
| 26. | DLNP | 03-2-1100-2010/ 2021 Non-Accelerator Neutrino Physics and Astrophysics | | E. Yakushev A. Kovalik | To extend the theme until the end of 2024 with Priority I (STC of Laboratory). (Joint session of the PAC NP and the PAC PP of 21.01.2021): | To extend the theme until the end of 2024 with priority I. |
| | ¥ 5, | SuperNEMO (2013– 2021) | 1 | O. Kochetov | To extend the project until the end of 2024, to assign category "B" to the project. (STC of Laboratory): To extend the project until the end of 2024 with first priority. | To extend the project until the end of 2023 with first priority. |
| | | GEMMA-III (2010– 2021) | 1 | A. Lubashevskiy E. Yakushev | To extend the project until the end of 2024, to assign category "B" to the project. To extend the project until the end of 2024 with first priority. | To extend the project until the end of 2023 with first priority. |
| | | EDELWEISS-LT (2010– 2021) | 1 | E. Yakushev | To extend the project until the end of 2024, to assign category "A" to the project. To extend the project until the end of 2024 with first priority. | To extend the project until the end of 2023 with first priority. |
| | , | G&M (GERDA) (2010– 2021) | 1 | K. Gusev | To extend the project until the end of 2024, to assign category "A" to the project. To extend the project until the end of 2024 with first priority. | To extend the project until the end of 2023 with first priority. |
| | | DANSS (2011– 2021) | 1 | Yu. Shitov | To extend the project until the end of 2024, to assign category "A" to the project. To extend the project until the end of 2024 with first priority. | To extend the project until the end of 2023 with first priority. |

| | | BAIKAL (2009–2023) | 1 | I. Belolaptikov | To assign category "A" to the project. (Joint session of the PAC NP and the PAC PP of January 2019). | |
|-----|------|--|---|--|--|--|
| | | MONUMENT (2021-2023) | | D. Zinatulina | To assign category "B" to the project (54th meeting of the PAC for NP). | |
| 27. | FLNP | 03-4-1128-2017/2022 Investigations of Neutron Nuclear Interactions and Properties of the Neutron | I | E. Lychagin Deputies: Yu. Kopatch P. Sedyshev | | |
| | | TANGRA (2014–2022) | 1 | Yu. Kopatch | | |
| | | New project Modernization of the EG-5 accelerator and its experimental infrastructure (Modernization of the EG-5 accelerator) (2022–2022) | | A. Doroshkevich | To open the project until the end of 2022, to assign category "B" to the project (53th meeting of the PAC for NP). To open the project until the end of 2022 with first priority (STC of Laboratory). | To open the project until the end of 2022 with first priority. |
| | ¥ | New project Investigations of Prompt Fission Neutron Emission in Fission (ENGRIN) (2022–2023) | | Sh. Zeynalov Deputy: L. Mitsyna | To open the project until the end of 2022, to assign category "B" to the project (54th meeting of the PAC for NP). To open the new project until the end of 2023 with first priority (STC of Laboratory). | To open the project until the end of 2022 with first priority. |

Condensed Matter Physics, Radiation and Radiobiological Research (04)

| NºNº | Laboratory | Theme code Theme title Project title (timescales) | Priority in 2021 | Theme (project) leader | Recommendation of the PACs (January, June, July 2021) Proposals by STC of Laboratories and Laboratories Directorate | Proposals by JINR Directorate |
|------|------------|---|---------------------|---|---|----------------------------------|
| 28. | FLNP | 04-4-1142-2021/2025 Investigations of Functional Materials and Nanosystems by Neutron Scattering Methods | 1 | D. Kozlenko V. Aksenov A. Balagurov | | |
| | | DINSS (2021–2023) | 1 | D. Chudoba | To assign category "A" to the project (Extraordinary meeting of the PAC for CMP of 29.04.2021). | |
| 29. | FLNP | 04-4-1105-2011/2022 Development of the IBR-2 Facility with a Complex of Cryogenic Neutron Moderators | 1 | A. Vinogradov A. Belushkin A. Dolgikh | | |
| | | Construction of a complex of cryogenic moderators at the IBR-2 facility (2014–2022) | 1 | K. Mukhin | To assign category "A" t to the project (54th meeting of the PAC for CMP). | |

| NºNº | Laboratory | Theme code Theme title Project title (timescales) | Priority in 2021 | Theme (project) leader | Recommendation of the PACs (January, June, July 2021) Proposals by STC of Laboratories and Laboratories Directorate | Proposals by JINR Directorate |
|------|------------|---|---------------------|---|---|---|
| 30. | FLNP | 04-4-1143-2021/2025 Scientific and methodological research and developments for condensed matter investigations with IBR-2 neutron beams | l | V. Bodnarchuk V. Prikhodko | and Laboratories Directorate | |
| | | Construction of a wide-aperture backscattering detector (BSD) for the HRFD diffractometer (2021–2023) | 1 | V. Milkov | To assign category "A" to the project (Extraordinary meeting of the PAC for CMP of 29.04.2021). | |
| 31. | FLNP | 04-4-1133-2018/2023 Modern Trends and Developments in Raman Microspectroscopy and Photoluminescence for Condensed Matter Studies | l | G. Arzumanyan N. Kučerka | | |
| | | Raman microspectroscopy in biomedical studies (Biophotonics) (2021–2023) | 1 | G. Arzumanyan N. Kučerka <i>Deputy:</i> K Mamatkulov | To assign category "A" to the project (Extraordinary meeting of the PAC for CMP of 29.04.2021). | |
| 32. | FLNP | 04-4-1140-2020/2022 Development of the Conceptual Design of a New Advanced Neutron Source at JINR | 1 | V. Shvetsov M. Bulavin | 8 | |
| 33. | FLNP | 04-4-1141-2020/2022 Development of the SOLCRYS Structural Research Laboratory at the SOLARIS National Synchrotron Radiation Centre | I | N. Kučerka | | |
| 34. | FLNR | 04-5-1131-2017/ 2021 Radiation Physics, Radiochemistry and Nanotechnology Investigations Using Beams of Accelerated Heavy Ions | 1 | S. Dmitriev P. Apel | To extend the theme until the end of 2023 (54th meeting of the PAC for CMP). To extend the theme until the end of 2023 with Priority I (STC of Laboratory). | To extend the theme until the end of 2023 with priority I. |
| 35. | LRB | 04-9-1077-2009/2023 Research of the Biological Effect of Heavy Charged Particles with Different Energies | Į. | E. Krasavin A. Bugay | | ~ |
| | | Research of the biological effect of heavy charged particles with different energies (2015–2023) | 1 | E. Krasavin A. Bugay | To assign category "A" to the project (54th meeting of the PAC for CMP). | |
| 36. | LRB | 04-9-1112-2013/2022 Research on Cosmic Matter on the Earth and in Nearby Space; Research on the Biological and Geochemical Specifics of the Early Earth | 1 | E. Krasavin A. Rozanov V. Shvetsov (FLNP) | i. | |
| | | Research on cosmic matter on the Earth and in nearby space; research on the biological and geochemical specifics of the early Earth (2013–2022) | 1 | E. Krasavin Scientific leader: A. Rozanov | To assign category "A" to the project (54th meeting of the PAC for CMP). | |

| Nº Nº | Laboratory | Theme code Theme title Project title (timescales) | Priority in 2021 | Theme (project) leader | Recommendation of the PACs (January, June, July 2021) Proposals by STC of Laboratories and Laboratories Directorate | Proposals by JINR Directorate |
|-------|------------|--|---------------------|---|---|----------------------------------|
| 37. | DLNP | 04-2-1132-2017/2022 Biomedical and Radiation-Genetic Studies Using Different Types of Ionizing Radiation | I | G. Mitsin S. Yakovenko Deputy: S. Shvidky | | |
| | | Further development of methods, technologies, schedule modes and delivery of radiotherapy (2017–2022) | 1 | G. Mitsin K. Voskanyan | To assign category "A" to the project (Extraordinary meeting of the PAC for CMP of 29.04.2021). | |
| | | RADIOGENE: Molecular genetics of radiation-induced changes at the gene, genome and transcriptome level in <i>Drosophila melanogaster</i> (2017–2022) | 1 | I. Alexandrov | To assign category "A" to the project (54th meeting of the PAC for CMP). | |
| | | Study of the radioprotective properties of the Damage Suppressor (Dsup) protein on a model organism D. melanogaster and human cell culture HEK293T (2021–2022) | 1 | E. Kravchenko | To assign category "A" to the project (54th meeting of the PAC for CMP). | |
| 38. | DLNP | 04-2-1126-2015/2023 Novel Semiconductor Detectors for Fundamental and Applied Research | I | G. Shelkov Deputy: V. Rozhkov | | |
| | | Novel semiconductor detectors for fundamental and applied research (2015–2023) | 1 | G. Shelkov Deputy: V. Rozhkov | To assign category "A" to the project (54th meeting of the PAC for CMP). | |
| | | Development of the experimental techniques and applied research with slow monochromatic positron beams (PAS) (2016–2023) | 1 | A. Kobets K. Semek Scientific leader: I. Meshkov | To assign category "A" to the project (54th meeting of the PAC for CMP). | |
| | | GDH&SPASCHARM (2011-2022) | 1 | Yu. Usov A. Kovalík | , | |

Networking, Computing, Computational Physics (05)

| N₂N₂ | Laboratory | Theme code Theme title Project title (timescales) | Priority in 2021 | Theme (project) leader | Recommendation of the PACs (January, June, July 2021) Proposals by STC of Laboratories and Laboratories Directorate | Proposals by JINR Directorate |
|------|------------|--|---------------------|--|---|----------------------------------|
| 39. | LIT | 05-6-1118-2014/2023 Information and Computing Infrastructure of JINR MICC (2017–2023) | 1 | V. Korenkov Deputy: T. Strizh V. Korenkov | | |
| 40. | LIT | 05-6-1119-2014/2023 Methods, Algorithms and Software for Modeling Physical Systems, Mathematical Processing and Analysis of Experimental Data | I | Gh. Adam P. Zrelov Deputies: J. Busa O. Chuluunbaatar | | |
| 41. | SOD | 05-8-1037-2001/2024 Analytical and Methodological Work to Assess the Prospect of Scientific Research and Cooperation in the Main Directions of JINR's Development. Organization of International Cooperation | | V. Matveev S. Nedelko Deputies: OA. Kulikov D. Kamanin | | |

Educational Programme (06)

| Nº№ | Laboratory | Theme code Theme title Project title (timescales) | Priority in 2021 | Theme (project) leader | Recommendation of the PACs (January, June, July 2021) | Proposals by JINR Directorate |
|-----|-------------------|--|---------------------|---------------------------|---|----------------------------------|
| 42. | All-JINR theme | 06-0-1139-2019/2023 Organization, Support and Development of the JINR Human Resources Programme | I | V. Matveev S. Pakuliak | | |
| | | Open information and educational environment for supporting fundamental and applied multidisciplinary research at JINR (2021–2023) | 1 | Yu. Panebrattsev | To assign category "A" to the project (Extraordinary meeting of the PAC for CMP of 29.04.2021). | |

S. Nedelko Chief Scientific Secretary