

JURY'S RECOMMENDATIONS ON JINR PRIZES FOR 2025

For theoretical research papers

First prizes

“A general approach to renormalization group equations in local quantum field theory”.

Authors: D. Kazakov, L. Bork, A. Borlakov, D. Vlasenko, D. Tolkachev, V. Filippov, R. Iakhibbaev.

“Angular momentum generation in fission fragments”.

Authors: G. Adamian, A. Andreev, N. Antonenko, A. Bezbakh, A. Isaev, R. Mukhin, A. Rahmati Nejad, T. Shneidman.

Second prize

“Fourier modal method for calculating neutron scattering from surface-relief and bulk diffraction gratings”.

Authors: M. Zakharov, A. Frank, G. Kulin.

For experimental research papers

First prizes

“Study of the production of hadrons (π^+ , K^+ , p) and light nuclei (d , t) in Ar + nucleus reactions in the BM@N experiment at the NICA accelerator complex”.

Authors: M. Zavertyaev, A. Zinchenko, M. Kapishin, L. Kovachev, V. Kolesnikov, R. Lednicky, S. Merts, V. Plotnikov, M. Rumyantsev, I. Rufanov.

“Investigation of reactions with ^{50}Ti and ^{54}Cr for the synthesis of new elements 119 and 120”.

Authors: Yu. Oganessian, D. Solovyev, N. Kovrizhnykh, M. Shumeiko, D. Ibadullayev, A. Voinov, V. Utyonkov, A. Polyakov, Yu. Tsyganov, O. Petrushkin.

Second prizes

“Probing the Galactic neutrino flux at neutrino energies above 200 TeV with the Baikal gigaton volume detector”.

Authors: I. Belolaptikov, V. Dik, T. Elzhov, D. Naumov, A. Sirenko, M. Sorokovikov, B. Shaibonov, Yu. Yablokova.

“Joint neutrino oscillation analysis from the T2K and NOvA experiments”.

Authors: L. Kolupaeva, A. Kalitkina, N. Anfimov, A. Antoshkin, N. Balashov, I. Kakorin, V. Matveev, A. Olshevskiy, O. Samoylov, A. Sheshukov.

Third prize

“Measurement of differential and total scattering cross sections of 14.1 MeV neutrons on carbon nuclei: methodological aspects and results”.

Authors: D. Grozdanov, P. Prusachenko, N. Fedorov, Yu. Kopatch, V. Skoy, T. Tretyakova, P. Kharlamov, A. Andreev, K. Hramco, P. Filonchik.

For methodology, research and technology papers

First prize

“Development and creation of superconducting magnets for the NICA Collider”.

Authors: D. Nikiforov, P. Akishin, Yu. Besspalov, A. Bychkov, D. Zolotykh, S. Korovkin, G. Kuznetsov, A. Merkurjev, M. Petrov, A. Svidetelev.

Second prizes

“Photo-NETosis: biomodulation of programmed cell death”.

Authors: G. Arzumanyan, K. Mamatkulov, Y. Arynbeke, Huy Duc Le, A. Volkov, N. Vorobjeva.

“Multi-nucleon transfer reaction studies with the velocity filter SHELS”.

Authors: A. Svirikhin, H. Devaraja Malligenahalli, Yu. Popov, M. Chelnokov, B. Sailaubekov, A. Kuznetsova, O. Malyshev, V. Chepigin, E. Sokol, M. Tezekbayeva.

Third prize

“Hardware and software modernization for the INAA at the REGATA facility (IBR-2 reactor)”.

Authors: D. Grozdov, V. Galustov, I. Zinicovscaia.

For applied research and technology papers

First prize

“A new approach to improving the efficiency of radiation therapy and nuclear medicine”.

Authors: A. Boreyko, A. Bugay, I. Zamulaeva, R. Kozhina, E. Krasavin, E. Kuzmina, O. Matchuk, S. Tiouchik, T. Hramko (Bulanova), V. Chausov.

Second prizes

“Neutron diffraction in situ studies of structures and phase transitions in binary and ternary iron-based alloys”.

Authors: A. Balagurov, T. Vershinina, B. Yerzhanov, B. Mukhametuly, N. Samoilova, A. Sohatsky, S. Sumnikov, I. Golovin, V. Palacheva, D. Chernyshov.

“Long term remote reactor power and fuel composition monitoring using antineutrinos”.

Authors: V. Belov, A. Bystryakov, I. Zhitnikov, S. Kazarcev, A. Kuznetsov, D. Medvedev, D. Ponomarev, E. Shevchik, M. Shirchenko.

Third prize

“Risk assessment of nanoparticle application: bioaccumulation, plant biochemical responses and trophic transfer”.

Authors: A. Peshkova, I. Zinicovscaia, L. Cepoi, L. Rudi, T. Chiriac, N. Yushin, S. Corcimaru, L. Ganea, Ho Manh Dung.