

JINR PRIZES FOR 2024

For theoretical research papers

First prize

“Theoretical advances in the structural characterization of complex systems: fractals, hierarchical and multiphase materials”.

Author: E. M. Anitas.

Second prizes

“High energy hadron elastic scattering ($\sqrt{s} = 3.6$ GeV up to $\sqrt{s} = 13\,000$ GeV)”.

Author: O. Selyugin.

“New physical effects caused by the gravitational field of objects moving at the speed of light”.

Authors: E. Davydov, I. Pirozhenko, V. Tainov, D. Fursaev.

For experimental research papers

First prize

“ ^7He structure from the deuteron stripping reaction”.

Authors: A. Bezbakh, R. Wolski, M. Golovkov, A. Gorshkov, A. Denikin, S. Krupko.

Second prizes

“Nucleon and cluster transfer in reactions with the ^9Be nucleus”.

Authors: A. Azhibekov, D. Aznabayev, T. Zholdybayev, T. Issatayev, S. Lukyanov, V. Maslov, K. Mendibayev, M. Naumenko, Yu. Penionzhkevich, V. Samarin.

“Pressure-induced phase transitions in perovskite-like layered titanates”.

Authors: A. Asadov, S. Kichanov, D. Kozlenko, E. Lukin, A. Mammadov, R. Mehdiyeva.

For methodology, research and technology papers

First prize

“Development of the BM@N spectrometer at the NICA accelerator complex”.

Authors: S. Bazylev, N. Zamyatin, M. Kapishin, E. Kulish, A. Makankin, S. Piyadin, M. Rumyantsev, S. Sedykh, S. Khabarov, V. Yurevich.

Second prizes

“Development of the software complex for the implementation of a unified architecture for distributed data processing and storage at the BM@N/NICA experiment”.

Authors: E. Alexandrov, I. Alexandrov, N. Balashov, K. Gertsenberger, P. Klimai, A. Moshkin, I. Pelevanyuk, I. Filozova, A. Chebotov, G. Shestakova.

“Creation of a full-cycle technological complex for the development, production and testing of Micromegas coordinate detectors”.

Authors: A. Gongadze, I. Gongadze, L. Gongadze, D. Dedovich, N. Kaurtsev, N. Kovyazina, I. Lyashko, I. Minashvili, I. Potrap, T. Rudenko.

Third prizes

“The MONUMENT experiment: ordinary muon capture studies for the $0\nu\beta\beta$ decay”.

Authors: V. Belov, K. Gusev, I. Zhitnikov, D. Zinatulina, S. Kazartsev, N. Rumyantseva, E. Shevchik, M. Shirchenko, M. Fomina.

“Creation a hardware and software complex to study the characteristics of the cathode strip chambers of the CMS experiment at the LHC in proton-proton interactions and studying their performance under conditions of high background”.

Authors: N. Voytishin, A. Golunov, N. Gorbunov, A. Kamenev, V. Karzhavin, A. Lanev, V. Matveev, V. Palchik, V. Perelygin, S. Shmatov.

“Numerical methods and problem-oriented program complexes for solving some partial differential equations of physical processes and systems”.

Authors: A. Gusev, O. Chuluunbaatar, G. Chuluunbaatar, J. Buša Jr., S. Vinitisky, T. Zhanlav, B. Batgerel, V. Ulziibayar, L. Hai, P. Wen.

For applied research and technology papers

First prize

“Deep learning methods for various problems in agriculture”.

Authors: A. Uzhinskiy, G. Ososkov, A. Nechaevskiy.

Second prizes

“Development of contrast agents for multi-energy computed tomography”.

Authors: V. Rozhkov, R. Sotenskii, G. Shelkov, E. Suslova, D. Shashurin, O. Medvedev.

“Composite and hybrid functional nanomaterials based on track membranes”.

Authors: A. Nechaev, P. Apel, A. Rossouw, I. Vinogradov, O. Kristavtchuk, E. Andreev, L. Kravets, V. Kukushkin, B. Gorberg, L. Petrik.