

JINR PRIZES FOR 2020

Theoretical Physics Research

First Prizes

“Graphene-based planar tunnel electronics”.

Authors: V. Katkov, V. Osipov.

“Scalar solitons, boson stars and hairy black holes”.

Authors: J. Kunz, I. Perapechka, Ya. Shnir.

Second Prize

“Neutrino mass, double beta-decay and nuclear structure”.

Authors: F. Šimkovic, A. Babič, R. Dvornický, H. Ejiri, S. Kovalenko, M. Krivoruchenko, A. Smetana, D. Štefánik, J. Vergados, P. Vogel.

Experimental Physics Research

First Prizes

“Investigation of probabilities of formation and decay of superheavy systems in dependence on the Coulomb factor $Z_1 Z_2$ at energies near the Coulomb barrier”.

Authors: E. Kozulin, A. Bogachev, I. Vorobiev, M. Itkis, J. Itkis, G. Knyazheva, D. Kumar, K. Novikov, A. Pan, I. Pchelincev.

“Background-free search for neutrinoless double- β decay of ^{76}Ge with GERDA”.

Authors: K. Gusev, I. Zhitnikov, D. Zinatulina, A. Klimenko, A. Lubashevskiy, N. Rumyantseva, A. Smolnikov, M. Fomina, E. Shevchik, M. Shirchenko.

Physics Instruments and Methods

First Prize

“Measurement of analyzing powers for nucleon-nucleus scattering at momentum range from 1.75 to 5.4 GeV/c”.

Authors: O. Gavrishchuk, D. Kirillov, J. Mušínský, C. Perdrisat, N. Piskunov, V. Punjabi, P. Rukoyatkin, I. Sitnik, E. Tomasi-Gustafsson, R. Shindin.

Second Prizes

“Development and software implementation of effective methods for modeling, reconstruction and analysis of events in the MPD/NICA setup”.

Authors: V. Vasendina, V. Voronyuk, A. Zinchenko, D. Zinchenko, V. Kireev, V. Kolesnikov, A. Mudrokh, J. Aichelin, E. Bratkovskaya.

“Development and application of new experimental methods at ACCULINNA-2 fragment separator”.

Authors: A. Bezbakh, M. Golovkov, A. Gorshkov, S. Krupko, I. Muzalevskii, E. Nikolskii, G. Ter-Akopian, A. Fomichev, V. Chudoba, G Kaminski.

Applied Physics Research

First Prize

“Experimental study and multiscale modeling of latent tracks structure in radiation resistant dielectrics”.

Authors: V. Skuratov, R. Rymzhanov, A. Volkov, A. Ibraeva, N. Kirilkin, N. Medvedev, J. O’Connell, A. Janse van Vuuren, J. Neethling, M. Zdorovets.

Second Prize

“Nanoscale structure of planar and developed electrochemical interfaces for lithium power sources by neutron scattering”.

Authors: M. Avdeev, V. Petrenko, I. Gapon, A. Ivankov, E. Ushakova, Y. Kosiachkin, D. Itkis, L. Yashina, A. Rulev, T. Zakharchenko.

Encouraging Prizes

“Three-body soft dipole mode and astrophysical applications”.

Authors: L. Grigorenko, Yu. Parfenova, N. Shulgina, M. Zhukov.

“Development and creation of coordinate detectors based on thin-walled drift tubes for the NA-64 at CERN”.

Authors: E. Vasilieva, P. Volkov, Yu. Gusakov, T. Enik, I. Zhukov, G. Kekelidze, V. Kramarenko, V. Lysan, D. Peshekhonov, A. Solin.

“High-resolution magnetic analyzer MAVR for studying characteristics of nuclear reactions”.

Authors: V. Maslov, Yu. Penionzhkevich, D. Aznabayev, S. Lukyanov, N. Skobelev, Yu. Sobolev, I. Kolesov, S. Pashchenko, G. Gulbekian, M. Khabarov.