MMCP2024

Monday 21 October 2024

Mathematical methods and tools for modeling complex physical systems - S1 (14:00 - 15:30)

time	[id] title	presenter
14:00	[5] Small-angle scattering and neutron reflectometry methods in the study of magnetic nanoparticles in magnetic fluids and their composites	KOPCANSKY, Peter
14:15	[6] Textile/ iron oxide nanozyme composites: Preparation, SANS/SAXS characterization, modelling of structural arrangements and environmental technology applications	SAFARIK, Ivo
14:30	[7] Field Theoretic Renormalization Group Approach to a Problem of a Running Sandpile in Turbulent Environment	KAKIN, Polina
14:45	[8] Peculiarities of Buzdin and Chimera Steps in the IV-Curve of Superconductor Ferromagnetic φ_{0} Josephson Junction	ABDEL GHANI, Majed
15:00	[9] Mathematical analysis of interactions in ferronematics.	TOMAŠOVIČOVÁ, Natália
15:15	[10] Quantum field renormalization approach to magmethydrodynamics: Analysis In Elsasser variables	MIZISIN, Lukas

Mathematical methods and tools for modeling complex physical systems - S1 (16:00 - 18:00)

time	[id] title	presenter
16:00	[11] Turbulent Dynamo as Spontaneous Symmetry Breaking: α-effect	OVSIANNIKOV, Andrei
16:15	[12] Dynamic isotropic percolation process: Three-loop approximation	KECER, Matej
16:30	[13] Stochastic voter model driven by avalanche-like perturbations	SAVITSKAYA, Natalia
16:45	[14] Random surface growth in random environment: renormalization group analysis of infinite-dimensional model	GULITSKIY, Nikolay
17:00	[15] Adsorptions of Hg, Cn, Pb and Fl Elements on Trigonal Selenium Surface from Periodic DFT Calculations	ILIAŠ, Miroslav
17:15	[16] Three-loop calculation of dynamical exponent z of $\ph^3$ theory	KOMPANIETS, Mikhail
17:30	[17] Dunkl-relativistic particles in the presence of external fields with non-constant Ricci scalar	NASRI NASRABADI, Mehdi
17:45	[137] Kinetic modeling of the IEC device in order to predict the number of produced ions	GHAMMAS, Hasan

Tuesday 22 October 2024

Mathematical methods and tools for modeling complex physical systems - S1 (14:00 - 15:30)

time	[id] title	presenter
14:00	[76] Application of minimax optimization for solving the Dirac equation for the two attractif centers.	JOULAKIAN, Boghos
14:15	[77] Simulation of a controllable magnetization reversal in a chain of Phi-0 junctions by an alternating voltage pulse	RAHMONOVA, Adiba
14:30	[78] Chaotic features of a stack of long Josephson junctions with inductive and capacitive couplings	RAHMONOV, Ilhom
14:45	[79] Application of the KANTBP 3.1 program and its modifications to the study of some nuclear reactions processes	CHULUUNBAATAR, Ochbadrakh
15:00	[80] Electron-Hydrogen Compton Scattering at High Momentum Transfer: Calculations of Second Born Singular Integrals	POPOV, Yuri
15:15	[81] ϕ4 oscillons as standing waves in a ball: a numerical study	ZEMLYANAYA, Elena

Mathematical methods and tools for modeling complex physical systems - S1 (16:00 - 18:00)

time	[id] title	presenter
16:00	[83] On a method for numerical solution of a time-dependent Schrödinger equation based on Lee-Trotter-Suzuki formula	ZAKHAROV, Maxim
16:15	[84] Construction of Fisher information matrix for multiparametric problem in super-resolution optical fluctuation imaging	MIKHALYCHEV, Alexander
16:30	[86] Fast Reconstruction of Programmable Integrated Interferometers	BANTYSH, Boris
16:45	[87] Nanoroughness induced anti-reflection and haze effects in opaque systems	GAREYAN, Vigen
17:00	[88] Prediction of Flows with Porous Inclusions Using the Generalized QGD-System of Equations	CHURBANOVA, Natalia
17:15	[89] Optimization of the neutron spectrum unfolding algorithm based on Tikhonov regularization and shifted Legendre polynomials	CHIZHOV, Konstantin

Thursday 24 October 2024

Mathematical methods and tools for modeling complex physical systems - S1 (16:00 - 17:30)

time	[id] title	presenter
16:00	[113] Computational simulation as a tool of investigating the behavior of a marine object in storm conditions	DEGTYAREV, Alexander
16:15	[139] Algorithm for identification of the equilibrium position of a marine object in the conditions of sea waves	GONCHARUK, Daniil
16:30	[114] A web application for fitting experimental data using JINR cloud infrastructure and ROOT package tools	LUKYANOV, Konstantin
16:45	[112] Computational environment for the numerical modelling of hybrid superconductor / magnetic nanostructures	NECHAEVSKIY, Andrey
17:00	[111] A Python-based analytical computing module for automating the representation of equations for further numerical simulation of a chain of nanomagnets coupled to a Josephson junction	ZUEV, Maxim