

## **The program of the Youth Conference of the Moscow Center of Fundamental and Applied Mathematics at INM RAS on December 22, 2021**

11:00 Welcome speech by the management of the Department of the Center

11:10 – 11:30 Ostanin Pavel "Approximation of the diffusion operator in the ionosphere model with preservation of the direction of the geomagnetic field"

11:30 – 11:50 Yanbarisov Ruslan "Model of a viscoelastic liquid with a free surface for the problem of compression of cellular spheroids"

11:50 – 12:10 Sheloput Tatyana "Methodology for setting conditions on open lateral boundaries in the model of hydrothermodynamics of the Baltic Sea based on variational assimilation of salinity data"

12:10 – 12:30 Grebennikov Dmitry "Mathematical models of the life cycle of HIV-1 and SARS-CoV viruses-2"

12:30 – 12:50 Savinkov Rostislav "Mathematical modeling of individual cellular dynamics using cellular automata, the use of artificial neural networks in mathematical modeling problems in immunology"

12:50-13:40 coffee break

13:40 – 14:00 Petrov Sergey "Modeling the dynamics of sea ice on an unstructured grid"

14:00 – 14:20 Vorobyova Vasilisa "Experimental studies of weather and climate predictability for the season and decade using the climate model of the IVM RAS"

14:20 – 14:40 Petrov Sergey "Tensor decompositions applied to automotive radars"

14:40 – 15:00 Timokhin Ivan "General structure of reduced bases for tasks aggregation kinetics of various dimensions"

15:00 – 15:20 Morozov Stanislav "Search for sparse solutions for ultra-large systems with tensor structure"

15:20 – 15:40 lunch break

15:40 – 16:00 Zasko Grigory "Calculation of optimal perturbations of turbulent flows"

16:00 – 16:20 Khristichenko Mikhail "Optimal perturbations of periodic solutions of delayed systems"

16:20 – 16:40 Goyman Gordey "High-order schemes for discretization of equations on a reduced latitude-longitude grid with variable separation"

16:40 – 17:00 Perezhogin Pavel "Modeling of subgrid processes in geophysical turbulence"