



# RMHD-2021

## Monday, 20 September 2021

### Fundamental problems of magnetohydrodynamics (11:30 - 13:10)

time	[id] title	presenter
11:30	[10] The electroconvective flows of a low conducting liquid in a steady and modulated electric field	NEKRASOV, O
11:50	[11] Stability of MHD flow in a 90-degree bend	PROSKURIN, A
12:10	[12] Comparison of Q2D and 3D models of MHD duct flow instability	SMOLIANOV, I
12:30	[13] Coherent columnar vortex in three-dimensional rotating turbulent flow: structure and spatial correlations	OGORODNIKOV, L
12:50	[14] Method for calculating the complex amplitudes of the electromagnetic field in a cylindrical channel of an induction plasmatron	KOROVIN, V

### Fundamental problems of magnetohydrodynamics: Session 8 - Fundamental problems of magnetohydrodynamics (16:30 - 18:10)

time	[id] title	presenter
16:30	[34] Convective, absolute and global azimuthal magnetorotational instability	MISHRA, A
16:50	[35] A new kind of double-diffusive helical magnetorotational instability in rotating flows with positive shear	MAMATSASHVILI, G
17:10	[36] Magnetoconvection in a horizontal duct flow at very high Hartmann and Grashof numbers	AKHMEDAGAEV, R
17:30	[37] Non-axisymmetric flows in the solar interior and quasi-biennial variations of solar activity	KUZANYAN, K
17:50	[38] Dynamo model in anisotropic uniform turbulent flow with shorttime correlations	ALLAHVERDIYEV, R

## Tuesday, 21 September 2021

### **Fundamental problems of magnetohydrodynamics: Session 9 - Fundamental problems of magnetohydrodynamics (10:00 - 11:20)**

time	[id] title	presenter
10:00	[48] Numerical simulation of the free surface magnetohydrodynamic wave turbulence	KOCHURIN, E
10:20	[49] On some properties of slow magnetoacoustic and entropy waves in the heatreleasing coronal plasma	ZAVERSHINSKII, D
10:40	[50] Eigenfunctions in different galactic dynamo models	MIKHAILOV, E
11:00	[51] Exploratory statistical analysis of Wolf numbers, their time derivatives and variation times of the solar activity	YAKOVLEVA, S

### **Fundamental problems of magnetohydrodynamics: Session 11 - Fundamental problems of magnetohydrodynamics (11:30 - 13:10)**

time	[id] title	presenter
11:30	[56] Continuous component of solar and stellar activity spectra in light of dynamo theory	SOKOLOFF, D
11:50	[57] Simulation of vortex and magnetic fields in three-dimensional flows of conductive media	MITROFANOVA, O
12:10	[58] Dynamic mode decomposition of MHD bubble chain flow	KLEVS, M
12:30	[59] Generation mechanisms of vortex-wave processes in conductive media	POZDEEVA, I
12:50	[60] Influence of the precession angle on the flow inside a precessing cylinder	KUMAR, V

### **Fundamental problems of magnetohydrodynamics: Session 13 - Fundamental problems of magnetohydrodynamics (14:30 - 15:50)**

time	[id] title	presenter
14:30	[40] Metal Pad Rotation instability experimental model	ЕЛЪТИЦЕВ, Владислав
14:50	[41] Evolution of strong electrovortex flow under external magnetic field in cylindrical cell	FRICK, Peter
15:10	[42] MHD driven localized short circuits in liquid metal batteries	WEBER, N
15:30	[43] Compositional convection in liquid metal electrodes	PERSONNETAZ, P

### **Fundamental problems of magnetohydrodynamics: Session 15 - Fundamental problems of magnetohydrodynamics (16:30 - 18:10)**

time	[id] title	presenter
16:30	[67] Nonstationary electrovortex flow in hemispherical bowl with external magnetic field: analytical Stokes solution	MALYSHEV, K

16:50	[68] Comparison of computational and measurement results for electrovortex flow in experimental setup with liquid metal and power supply over top and bottom electrodes	PAVLOVS, S
17:10	[69] Velocity measurements in the electrovortex flow in the system with two submerged electrodes	ТЕПЛЯКОВ, I
17:30	[70] The spin-up process of the electrovortex flow subject to the external magnetic field	МАНДРЫКИН, Сергей
17:50	[71] Peculiarities of electrovortex flows in a multi-electrode arc furnace at DC and low frequency AC power supply	КУКНАРЕВ, А

# Wednesday, 22 September 2021

## **Fundamental problems of magnetohydrodynamics: Session 18 - Fundamental problems of magnetohydrodynamics (11:30 - 13:10)**

time	[id] title	presenter
11:30	[85] Numerical simulation of two-dimensional MHD turbulence behind a grid in an annular channel	STEPANOV, Rodion
11:50	[86] Conditions for the formation of the magnetic field at the early stages of the Earth's evolution	MINDUBAEV, M
12:10	[87] Numerical mhd modeling of hot Jupiter transit absorptions in the metastable helium line	RUMENSKIKH, M
12:30	[88] The influence of ion-neutral collisions on the amplification of thermally unstable magnetoacoustic waves	RIASHCHIKOV, D
12:50	[89] The simplest linear Solar dynamo and non-linear geodynamo	STARCHENKO, S