

List of accepted talks

- Akhmet'ev P.** The magnetic helicity and higher helicity invariants as constraints for dynamo action
- Antipin A., Mindubaev M.** Conditions for the formation of the magnetic field at the early stages of the Earth's evolution
- Akhmedagaev R., Zikanov O., Listratov Ya.** Magnetoconvection in a horizontal duct flow at very high Hartmann and Grashof numbers
- Bénard S., Landgraf S., Weber N., Weier T.** MHD driven localized short circuits in liquid metal batteries
- Belov S., Molevich N., Zavershinskii D.** Dispersion of slow magnetoacoustic waves caused by thermal misbalance and finite size of magnetic flux tube
- Beketova E., Nechaeva O., Dikansky Yu.** Specific deformation of drops of magnetic emulsion in a variable electric field
- Brazhnik D., Bolotin K.** Numerical simulation of melting and stirring in induction furnace with graphite crucible
- Brestenský J., Filippi E.** Magnetoconvection with anisotropic diffusion as a tool to investigate the dynamics of dynamo regions
- Belyaev I., Luchinkin N., Chernysh D., Melnikov I., Sardov P., Listratov Ya., Razuvanov N., Frick P.** Limits of magneto-convective fluctuations in liquid metal downflow in vertical channels affected by a transverse magnetic field
- Budaev V.** Plasma-surface interaction in fusion devices: review of recent results
- Chekanov V.** Instability of a flat surface of a magnetic fluid at the boundary with water in an electric field
- Chudnovsky A., Ivochkin Yu., Jakovics A., Pavlovs S.** Comparison of computational and measurement results for electrovortex flow in experimental setup with liquid metal and power supply over top and bottom electrodes
- Cherepanov I., Smorodin B.** Transient and permanent convection of colloid in a horizontal cell
- Dobroserdova A., Maltseva E., Sanchez P., Kantorovich S.** Magnetoactive elastomers: molecular dynamics simulations of magnetic properties
- Dolgikh V., Pavlinov A., Kolesnichenko I.** Influence of MHD-channel geometry on pressure drop
- Eltischev V., Losev G., Kolesnichenko I.** Metal Pad Rotation instability model
- Elfimova E., Zverev V., Rusanov M., Kuznetsov M.** Simple approximate formula for susceptibility of concentrated ferrofluid in a DC and AC magnetic fields
- Frick P., Eltishchev V., Mandrykin S., Kolesnichenko I.** Evolution of strong electrovortex flow under external magnetic field in cylindrical cell
- Golbraikh E.** Could Earth's solid core be a magnet?
- Giesecke A., Pizzi F., Garcia F., Stefani F.** Dynamo action of the large scale flow in a precessing cylinder
- Garcia F., Ogbonna J., Gundrum T., Seilmayer M., Giesecke A., Stefani F.** The magnetized spherical couette system: from numerics to experiments
- Glukhov A., Sidorov A.** Convection of a magnetic fluid in vertical connected channels in a permanent magnetic field
- Gruzd S., Krivilyov M., Morozov G.** Electromagnetic stirring in continuous casting of steel
- Gupalov M., Novak E., Kantorovich S.** Magnetic and structural properties of magnetic elastomers
- Gubanov E., Likhachev A., Medin S.** Magnetosphere response to solar wind forcing: 2D MHD simulation results at various solar wind parameters
- Illarionov E., Sokoloff D.** Finite memory time and anisotropy effects for the initial stage of dynamo process

Ivanov A.S., Khokhryakova C., Pshenichnikov A., Somov S., Koskov M. Floating of non-magnetic and superparamagnetic solids in ferrofluids: inductive approach

Ivanov A.O., Kuznetsova O., Camp P. Mathematical modelling of the collective magnetization relaxation dynamics of Brownian magnetic nanoparticles

Jüstel P., Röhrborn S., Frick P., Galindo V., Gundrum T., Schindler F., Stefani F., Stepanov R., Vogt T. Experimentally synchronizing the large-scale circulation in a cylindrical Rayleigh-Benard cell by tide-like electromagnetic forcing

Khripchenko S. Vertical heat transfer in a cylindrical vessel with liquid metal under alternating exposure to traveling and rotating magnetic fields

Korovin V. Method for calculating the complex amplitudes of the electromagnetic field in a cylindrical channel of an induction plasmatron

Korovin V. Influence of nonlinearity of magnetization law on Kelvin-Helmholtz instability for horizontal relative motion of ferrofluid and gas flows in a longitudinal magnetic field

Kukharev A. Peculiarities of electrovortex flows in a multi-electrode arc furnace at DC and low frequency AC power supply

Klevs M., Birjukovs M., Zvejnieks P., Jakovics A. Dynamic mode decomposition of MHD bubble chain flow

Krauter N., Eckert S., Gundrum T., Stefani F., Wondrak T., Khalilov R., Dimov I., Frick P. Inductive system for magnesium level detection in a titanium reduction reactor

Kumar V., Giesecke A., Gundrum Th., Pizzi F., Ratajczak M., Stefani F. Influence of the precession angle on the flow inside a precessing cylinder

Kaiser M., Kantorovich S. Separation of active-dipolar cubes in applied fields

Kolesnikov Y., Krasnov D., Listratov Ya., Belyaev I., Pyatnitskaya N., Sviridov E., Zikanov O. Transformation of submerged liquid metal jets under strong magnetic fields

Khokhryakova C., Kolesnichenko E. Waves on a free surface of a magnetic fluid in alternating vertical magnetic field

Khripchenko S., Dolgikh V., Siraev R. Injection of nanoparticles of boron nitride in liquid aluminum during its MHD-stirring

Khokhryakova C., Mizeva I., Shmyrova A., Shmyrov A. Experimental study of the magnetic fluid surface tension variation in the uniform magnetic field

Kuznetsova A., Elfimova E. The specific loss power of a system of single-domain interacting superparamagnetic particles

Karasev T., Teimurazov A., Perminov A. Modelling of liquid magnesium convection in a titanium reduction apparatus

Kochurin E., Zubarev N. Numerical simulation of the free surface magnetohydrodynamic wave turbulence

Kolesnichenko I., Eltishchev V., Mandrykin S., Pavlinov A., Frick P. Electrosvortex flows in cylindrical cell and external magnetic field

Khalilov R., Pavlinov A., Kolesnichenko I., Mamykin A., Shestakov A., Frick P. Travelling magnetic field pumps for liquid metals: numerical and experimental studies

Kolesnichenko I., Pavlinov A., Mamykin A., Khalilov R. Liquid metal flow generation in cylindrical cell by smart inductor

Khalilov R. Liquid metal level measurement

Kleorin N., Rogachevskii I., Kuzanyan K., Stepanov R. Non-axisymmetric flows in the solar interior and quasi-biennial variations of solar activity

Losev G., Mamykin A. Electromagnetic measurements of non-ferrous metals conductivity

Mikhailova Y. Electromagnetic field in the flowmeter channel for liquid metals

Mikhailov E. Eigenfunctions in different galactic dynamo models

Mamatsashvili G., Stefani F., Hollerbach R., Rüdiger G. A new kind of double-diffusive helical magnetorotational instability in rotating flows with positive shear

Mantsurov A., Makarov D., Petrov D. Statistical theory of magnetic field induced phase

transitions in ferronematics

Mishra A., Mamatsashvili G., Galindo V., Stefani F. Convective, absolute and global azimuthal magnetorotational instability

Mostarac D., Sánchez P., Kantorovich S. Rheology of nanoscale polymer-like chains with ferromagnetic nanoparticles

Malyshev K., Mihailov E., Teplyakov I. Nonstationary electrovortex flow in hemispherical bowl with external magnetic field: analytical Stokes solution

Mitrofanova O. Simulation of vortex and magnetic fields in three-dimensional flows of conductive media

Mitrofanova O., Pozdeeva I. Generation mechanisms of vortex-wave processes in conductive media

Merkulov D., Pelevina D., Turkov V., Naletova V. Four-parameter model of magnetizable elastomers viscoelastic behavior

Mandrykin S., Kolesnichenko I. The spin-up process of the electrovortex flow subject to the external magnetic field

Mamykin A., Mandrykin S., Losev G. Features of the large-scale circulation behavior during Rayleigh-Benard convection in a square cylinder filled with liquid sodium

Mamykin A., Kolesnichenko I., Golbraikh E., Pavlinov A. Temperature correlation method application to the problem of measuring the flow rate of liquid sodium

Nikulin I., Demin V. Numerical simulation of heat and mass transfer in a metal melt and deformations in a dielectric film during induction melting

Novikau I., Novak E., Sanchez P., Kantorovich S. Magnetic nanogel in shear flow

Nekrasov O., Smorodin B. The electroconvective flows of a low conducting liquid in a steady and modulated electric field

Omelyanchik A., Antipova V., Gritsenko C., Kolesnikova V., Peddis D., Levada K., Amirov A., Rodionova V. Tuning the magnetoel. effect in polymer-based nanocomposites

Obukhov D., Chaika P., Krizhanovsky S., Labusov A., Preslitsky G., Tukeev P., Federyaeva V. Development of electromagnetic pump for the second loop of the MBIR reactor

Ozernykh V., Kolesnichenko I. Electromagnetic forces acting in a representative volume of liquid metal with inclusions of various shapes

Okatev R., Kolesnichenko I. Impact the inhomogeneity of electric conductivity on MHD processes

Proskurin A. Stability of MHD flow in a 90-degree bend

Petrov D. On the isotropic-nematic liquid crystal phase transitions in a solution of polydisperse magnetic disks

Petrov D. Effective field method in the physics of ferromagnetic liquid crystal suspensions

Personnetaz P., Klopper T., Bénard S., Kubeil C., Landgraf S., Weber N., Weier T. Compositional convection in liquid metal electrodes

Pipin V. Nesting magnetic activity on the fast rotating solar analogs

Poperechny I. Relaxation spectrum of a superparamagnetic nanoparticle, suspended in a liquid: the effect of an applied field

Pyanzina E., Gupalo M., Akisheva A., Naumov E., Novak E. Self-assembly supramolecular magnetic polymers with different monomers

Pavlinov A., Khalilov R., Mamykin A., Kolesnichenko I. Electromagnetic flowmeter for liquid metals: calculation, design and calibration

Reshetnyak M. The joint cooling model of the core and mantle

Rosenberg M., Sanchez P., Petrov D., Sebastian N., Mertelj A., Kantorovich S. Phase behavior of charged magnetic nanoplatelets

Riashchikov D., Pichugin S., Molevich N. The influence of ion-neutral collisions on the amplification of thermally unstable magnetoacoustic waves

Röhrborn S., Jüstel P., Galindo V., Stefani F., Stepanov R. Numerical simulation of tidal

synchronization of the large-scale circulation in Rayleigh-Benard convection with aspect ratio 1

Rumenskikh M., Shaikhislamov I., Berezutsky A., Efimov M., Miroshnichenko I. Numerical mhd modeling of hot Jupiter transit absorptions in the metastable helium line

Sokoloff D., Frick P. Continuous component of solar and stellar activity spectra in light of dynamo theory

Starchenko S. The simplest linear Solar dynamo and non-linear geodynamo

Starchenko S., Yakovleva S. Exploratory statistical analysis of Wolf numbers, their time derivatives and variation times of the solar activity

Stefani F., Horstmann G.M., Stepanov R., Weier T. Possible synchronization mechanisms for Short- and long-term cycles of the solar dynamo

Sukhanovskii A., Vasiliev A. Heat transfer in case of mixed boundary conditions

Smolianov I., Shmakov E., Baake E. Comparison of Q2D and 3D models of MHD duct flow instability

Smolianov I., Shmakov E., Baake E. Natural convective in MHD duct flow

Sadilov E. Joint influence of magnetic field and normal vibrations on the instability of two-layer system, containing magnetic and non-magnetic fluids

Sánchez P, Kantorovich S. Applying mass-spring models with tunable poisson's ratio to the computer modeling of magnetic elastomers

Shvydkiy E., Smolyanov I., Baake E. Interaction of buoyancy and EM forced convection during horizontal directional solidification

Subbotin I., Ivanov A. Mathematical modelling of static magnetic properties of multicore particles

Sokolov I., Losev G., Shvydkiy E. Impurity distribution in a rectangular cell under travelling magnetic field

Soldatov I., Mishustova Z. The effect of magnetic field on waves in a centrifuged conducting viscous layer inside a rotating cylindrical container

Stepanov R. Numerical simulation of two-dimensional MHD turbulence behind a grid in an annular channel

Teplyakov I., Vinogradov D., Ivochkin Yu., Chudnovsky A., Jakovics A., Pavlovs S. Velocity measurements in the electrovortex flow in the system with two submerged electrodes

Uvarov Y., Bykov A. Study of astrophysical magnetic turbulence with new generation X-ray polarimeters. Application to supernova remnants

Velt I., Mikhailova Yu., Sudarikov V. Elimination of magnetic flowmeters nonlinearity caused by the MHD-effect

Velt I., Mikhailova Yu., Sudarikov V. Magnetic flowmeter for fast sodium reactors

Vergeles S., Ogorodnikov L. Coherent columnar vortex in three-dimensional rotating turbulent flow: structure and spatial correlations

Yachikov I. Study of keeping a permanent magnet suspended in a pulsed magnetic field

Yachikov I., Loginovskiy O., Shestakov A. Hydrodynamic characteristics and heat transfer in the laminar cocurrent flow of two parallel flows of liquid metals

Yanovskii A., Simonovskii A. An effect of the magnetic field on heat transfer of boiling magnetic fluid on a horizontal heater with spot heat input

Yanovskii A., Simonovskii A., Shatalov N., Starenkova Yu. Hydro-gas dynamics of vaporization in a magnetic liquid in a magnetic field

Yushkov E., Allahverdiyev R., Sokoloff D. Dynamo model in anisotropic uniform turbulent flow with shorttime correlations

Yushkov E., Malova H., Maiewski E., Sokoloff D. Magnetic field symmetries in the frame of spherical dynamo for exoplanets and host stars

Zubarev A., Chirikov D., Zablotsky D. Viscoelasticity modules in ferrofluids with clustered nanoparticles

Zakinyan A. Transfer phenomena in magnetic fluid composites

Zibold A. Nonstationary instability of axisymmetric flow of liquid in rotating magnetic field
Zverev V., Novak E., Gupalo M., Kantorovich S., Sánchez P. Magnetic and rheological properties of supracolloidal magnetic polymers in a Poiseuille flow
Zavershinskii D., Kolotkov D., Molevich N., Riashchikov D., Belov S. On some properties of slow magnetoacoustic and entropy waves in the heat-releasing coronal plasma