

# Magnetohydrodynamics 56,

4 (2020)

## GENERAL AND THEORETICAL PROBLEMS

- C. Jimenez, H. Vargas and R. Correa. Velocity profiles of ferrofluids in a cylindrical container and in the presence of external rotating magnetic fields of high strength and frequency 341
- A. E. Dubinov and I. N. Kitayev. New exact solutions of the equation of non-linear dynamics of a lattice of electronic vortices in plasma in the framework of electron magnetohydrodynamics 369
- V. M. Polunin, P. A. Ryapolov, E. V. Shel'deshova, G. V. Karpova and V. M. Paukov. Damping of an oscillatory system with incomplete sealing of the air cavity by magnetic fluid 377
- Y. Zhao, J. Tao, W. Hong and R. Hollerbach. Intermittency in magnetohydrodynamic Taylor--Couette flow with the free-slip top and bottom walls 393
- E. A. Mikhailov. Symmetry of the magnetic fields in galactic dynamo and the material arms 403

## APPLIED PROBLEMS

- X. Chen, H. Ye, L. Zhao, L. Li and A. Peng. Numerical study and comparison of the marine MHD thruster in a helical channel and in a linear channel 415
- S. Khripchenko and S. Denisov. Heat transfer in a cylindrical crucible with liquid metal under continuous and reverse action of traveling and rotating magnetic fields 427
- S. Khripchenko, M. Zhelnin, A. Kostina, A. Prokhorov and O. Plekhov. Stirring of aluminum in the bath of the industrial aluminum furnace with a rod inductor generating travelling magnetic field 437
- I. Krastins and A. Bojarevics. Metal pad roll instability threshold with magnetic damping in shallow cylindrical cells 451

<u>V. Timofeev, M. Pervukhin, E. Vinter and N. Sergeev</u> . Behavior of non-conducting particles in molten aluminium cast into electromagnetic molds	459
<u>V. N. Zaichenko, I. O. Slobodyanyuk and I. A. Rusetskyi</u> . Creation of forced convection at water electrolysis by means of external magnetic field]	473
<u>A. Chudnovsky, Yu. Ivochkin, A. Jakovičs, S. Pavlovs, I. Teplyakov and D. Vinogradov</u> . Investigations of electrovortex flows with multi electrode power supply	487