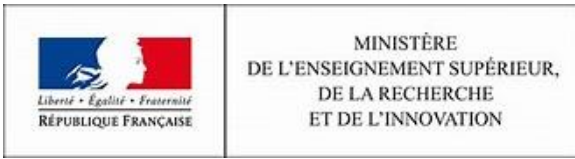


19:30 – 21:30

Sunday 3rd July - Welcome Cocktail

Monday 4th July - Radisson Blue Hotel	
8:30 – 9:30	Registration
9:30 – 10:00	Room Carmen: Opening Ceremony Chair: P. Zabinski
10:00 – 10:40	Room Carmen: Keynote Speech 1 - Leo BUHLER Chair: A. Sellier
10:40 – 11:00	Coffee Break
11:00 – 12:00	Room Carmen: Fund. MHD (108–43–52) Chair: A. Sellier
	Room Halka: Fund. MHD (16–20–63) Chair: J. Mestel
12:00 – 14:00	Lunch
14:00 – 14:40	Room Carmen: Keynote Speech 2 – Ivan SKORVANEK Chair: S.Cuevas
14:40 – 15:40	Room Carmen: Fund. MHD (51–19–86) Chair: S.Cuevas
15:40 – 16:00	Coffee Break
16:00 – 17:00	Room Carmen: Fund. MHD (27–36–49) Chair: S.Cuevas
	Room Halka: Free surf. flows (111–104–110) Chair: A.Bouabdellah
17:00 – 18:00	Meeting of the MHD society
Tuesday 5th July Radisson Blue Hotel	
9:00 – 9:40	Room Carmen: Keynote Speech 3 – Agris GAILITIS Chair: F. Stefani
9:40 – 10:40	Room Carmen: Basic MHD (6–40–102) Chair: F. Stefani
	Room Halka: Electr. proc. of mat. (10–25–28) Chair: R. Avalos
10:40 – 11:00	Coffee Break
11:00 – 12:20	Room Carmen: Fund. MHD (12–50–82–76) Chair: F. Stefani
	Room Halka: Electr. proc. of mat. (31–33–34) Chair: R. Avalos
12:30 – 14:00	Lunch
14:00 – 14:40	Room Carmen: Keynote Speech 4 – Anne-Lise DALTIN Chair: G. Mutschke
14:40 – 15:40	Room Carmen: Fund. MHD (37–11–95) Chair: G. Mutschke
	Room Halka: Electr. proc. of mat. (41–53–54) Chair: A. Kharicha
15:40 – 16:00	Coffee Break
16:00 – 17:00	Room Carmen: Fund. MHD (66–47–4) Chair: G. Mutschke
	Room Halka: Electr. proc. of mat. (62–42–55) Chair: A. Kharicha
17:00 – 18:00	POSTER SESSION (9-15-22-23-26-29-38-61-68-93-94–109-113-115-116) Chairs: A. Alemany – C. Latge – P. Zabinski
19:30 – 23:30	Gala Dinner & Poster Prize
Wednesday 6th July - Radisson Blue Hotel	
9:00 – 9:40	Room Carmen: Keynote Speech 5 – Laurent DAVOUST Chair: A.L. Daltin
9:40 – 10:40	Room Carmen: EHD & Electrok. (44–74) Chair: C. Latge
	Room Halka: MEHD generators (107–67–75) Chair: A.L. Daltin
10:40 – 11:00	Coffee Break
11:00 – 12:20	Room Carmen: LIQU MET. TECH. (8–13–5–14) Chair: C. Latge
	Room Halka: Basic MHD (65–17–57–117) Chair: A.L. Daltin
12:30 – 19:30	Lunch & Excursion (Wieliczka)
Thursday 7th July - Radisson Blue Hotel	
9:00 – 9:40	Room Carmen: Keynote Speech 6 – Florin BALTARETU Chair: I. Kaldre
9:40 – 10:40	Room Carmen: Basic MHD (30–18–106) Chair: A. Montisci
	Room Halka: Elect. Proc. of mat (114–103–46) Chair: I. Kaldre
10:40 – 11:00	Coffee Break
11:00 – 12:00	Room Carmen: Elect. Proc. of mat (81–83–87) Chair: A. Montisci
12:00 – 14:00	Lunch
14:00 – 14:40	Room Carmen: Keynote Speech 7 – Andrejs CEBERS Chair: P. Zabinski
14:40 – 15:40	Room Carmen: Elect. Proc. of mat (101–73–91) Chair: P. Zabinski
15:50 – 16:30	Room Carmen: Closing Ceremony
17:00 – 18:00	COST Meeting



MINISTÈRE
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THE 12TH PAMIR INTERNATIONAL CONFERENCE ON FUNDAMENTAL AND APPLIED MHD



JULY 4-7, 2022

LIST OF PAPERS

- ID4** Linear stability of ferrofluids in different configurations – **BRIGGS FERGUSON Sarah**
- ID5** Optimization of sensor configuration for contactless inductive flow tomography – **MITRA Rahul**
- ID6** Nonlinear laminar 'Dynamos' linear in one coordinate – **MESTEL Jonathan**
- ID8** Numerical study of species distribution and overpotentials in liquid metal batteries – **DUCZEK Carolina**
- ID9** COCONUT MHD coronal model as a basis for EUHFORIA2.0 space weather forecast – **KUZMA Blazej**
- ID10** Global and local flow effects during electrodeposition of nano-structured metal layers in a magnetic field – **MUTSCHKE Gerd**
- ID11** Experiments on bi-stability in rotating permanent magnet generated electrolyte flow in a ring-shaped container – **BERENIS Didzis**
- ID12** Neutron radiography of liquid drops ascending in a liquid metal – **LAPPAN Tobias**
- ID13** Experimental investigation of Na-Zn molten salt batteries – **WEBER Norbert**
- ID14** Comparison of contactless inductive flow tomography with ultrasound-doppler velocimetry in a large Rayleigh-Bénard convection cell – **SIEGER Max**
- ID15** Electrolyte convection in liquid metal batteries – **WEBER Norbert**
- ID16** Onset of instability in the magnetohydrodynamic pipe flow subject to a transverse magnetic field – **VELIZHANINA Yelyzaveta**
- ID17** Numerical and theoretical framework for the DRESDYN precession dynamo experiment – **PIZZI Federico**
- ID18** Numerical simulation of liquid metal MHD flow in a rectangular duct – **TIGRINE Zahia**

ID19 A self-consistent planetary synchronization model of short-, medium-, and long-term cycles of the solar dynamo – **STEFANI Frank**

ID20 Theory on tidally forced Rossby waves in solar-like stars - **HORSTMANN Gerrit**

ID22 Alfvén wave experiments with liquid rubidium in a pulsed magnetic field – **GUNDRUM Thomas**

ID23 Optimization of the method for recycling cadmium- containing waste with the help of electromagnetic stirrer – **BREKIS Artūrs**

ID25 Numerical and experimental study of electrovortex flow in direct current electrical arc furnace with bottom electrodes of complicated geometry – **JAKOVICS Andris**

ID26 Electromagnetic pumps with rotating permanent magnets inlet pressure influence on pressure– flow rate curves – **KRAVALIS Kalvis**

ID27 Near-wall MHD turbulence: investigation of a spanwise magnet array configuration – **CAPOGNA Amandine**

ID28 Proof of concept for controlling an electromagnetic brake using contactless inductive flow tomography – **WONDRAK Thomas**

ID29 Electrical insulation of PbLi MHD flow in a strong magnetic field by use of SiC flow channel inserts – **BREKIS Artūrs**

ID30 The effect of the nutation angle on the flow in a precessing cylinder: experimental results – **KUMAR Vivaswat**

ID31 Directional solidification of aluminum alloys under combined DC/AC electromagnetic interaction – **NIKOLUSKINS Raimonds**

ID33 Modeling of inductively heated floating zone process including free surface shape using OpenFOAM – **TSIAPKINIS Iason**

ID34 Bubble dispersion in liquid metal by electromagnetic stirring – **BARANOVSKIS Reinis**

ID36 Swirling electrolyte flow in a cylindrical cavity under axial current and magnetic field: experimental and numerical study – **MARÍN-NÚÑEZ MaríaDalia**

ID37 Electromagnetic stirring of viscoelastic conducting fluids – **OLVERA Jose**

ID38 Numerical characterization of liquid metal MHD flow in co-axial rectangular manifolds – **TASSONE Alessandro**

ID40 Axisymmetric MHD viscous flow about a slip solid sphere translating parallel with a uniform ambient magnetic field – **SELLIER Antoine**

ID41 Simulation of direct strip casting with electromagnetic flow control – **DZELME Valters**

ID42 Analysis of the symmetry of three-dimensional silicon melts flow generated by a Bitter traveling magnetic field in a cylindrical crucible – **HIBA Brahim**

ID43 Alfvén waves excitation at low magnetic Reynold number – **LALLOZ Samy**

ID44 Atomisation of a capillary jet using a stacked-type electrofluidic actuator – **LALLOZ Samy**

ID46 Numerical modeling of a benchmark experiment of Sn-10wt.%Pb alloy solidification under forced convection driven by an alternative electromagnetic stirring – **ABDELHAKEM Abdelhafidh**

ID47 Nonlinear simulations of magnetorotational instability: scaling properties and their importance in upcoming DRESDYN-MRI experiment – **MISHRA Ashish**

ID49 Linear self-modelling electrovortex flow between two cylinders – **MIKHAILOV Evgeny**

ID50 From helical to standard magnetorotational instability: predictions for upcoming liquid sodium experiments – **MAMATSASHVILI George**

ID51 Rotating waves arising from the instability of magnetized spherical Couette flows – **OGBONNA Jude**

ID52 Heat transfer enhancement using magnetic fins in liquid metal flows in ducts – **CUEVAS Sergio**

ID53 Numerical study of semi-solid metal slurry stirring in a cylindrical crucible by a rotating permanent magnet – **KRASTINS Ivars**

ID54 Continuous casting of slabs under the impact of combined static magnetic fields: a numerical study – **BAHAREH Najafian Ashrafi**

ID55 Crucible considerations in induction furnace degassing – **PETRYKOWSKI John**

ID57 Electromagnetic synchronization of a Rayleigh-Bénard flow – **JUESTEL Peter**

ID61 Magnetohydrodynamic flow in stepwise bent circular pipes – **BUHLER Leo**

ID62 Synthesis of conical Co-Fe alloys structures by one- and two-step methods in superimposed magnetic field – **SKIBINSKA Katarzyna**

ID63 Dynamic mode decomposition of bubble shape perturbations and flow velocity and vorticity fields for MHD bubble chain flow – **KLEVS Martins**

ID65 A liquid metal MHD vortex generator model for energy harvesting applications – **AVALOS ZUNIGA Raul Alejandro**

ID66 – A static decay heat removal system based on a thermoacoustic MHD electrical generator – **MONTISCI Augusto**

ID67 A sound-fired liquid metal MHD Disk Generator – **MONTISCI Augusto**

ID68 MHD wake around a cylinder for different values of the magnetic Reynolds number – **MONTISCI Augusto**

ID73 Influence of flow on heat transfer under different current modulation with electromagnetic levitation – **PONS Romain**

ID74 Acceleration of antigen-antibody recognition by AC electrothermal flow in a microchannel – **DAVOUST Laurent**

ID75 Performance of waste-fired zero emissions integrated gasification thermoacoustic magnetohydrodynamic (Z-IGTM) power plant – **RASHID Aiman**

ID76 Small-scale magnetic field generation in MHD shell model – **ABUSHZADE Ilyas**

ID81 Analysis of the kinetics of transport of selected rare earth ions at the liquid-liquid interface in the presence of a magnetic field gradient – **WOJTASZEK Konrad**

ID82 Local Anisotropy in the Kazantsev model – **ALLAHVERDIYEV Ramin**

ID83 Adsorption of rare earth ions on magnetically modified activated carbon – **KOLCZYK-SIEDLECKA Karolina**

ID86 Eddy-Current flowmeter response to spherical non-conductive inclusions travelling in liquid metal – **AFFLARD Antoine**

ID87 Preliminary investigation of an induction melting process for Niobium-based alloys in cold wall crucible furnace – **GUGLIELMI Mattia**

ID91 The change of magnetic properties of fluids based on liquid crystals doped with magnetic particles – **TOMASOVICOVA Natalia**

ID93 Experimental validation of liquid metal MHD numerical models – **JAKOVIČS Andris**

ID94 Induction melting in cold crucible furnace applied to innovative high-melting temperature metals – **GUGLIELMI Mattia**

ID95 The importance of magnetoconvection with anisotropic diffusivities for a better understanding of the Earth's core MHD – **FILIPPI Enrico**

ID101 Magnetically-tailored Ni nanowires obtained in one-step wet chemical reduction – **KUTYLA Dawid**

ID102 2022-year experiments at Riga dynamo facility – **LIPSBERGS Guntis**

ID103 Innovative cold crucible for single crystal growth – **ZAIDAT Kader**

ID104 Investment castings with unique levitation melting technology - FASTCAST – **SPITANS Sergejs**

ID106 Interaction between hydrodynamic field and suspended solid particles in Taylor-Couette-Poiseuille Flow system – **LAGHOUATI Yassine**

ID107 Optimization of the efficiency in an MHD generator channel coupled to a thermoacoustic tube – **LAGHOUATI Yassine**

ID108 Swirling electrovortical flows – **KHARICHA Abdellah**

ID109 Effect of various magnetic permeabilities on the fluid flow velocity around circular cylinder under an external applied magnetic field – **AISSA Mohammed**

ID110 The experimental research of level fluctuation of GaInSn alloy in permanent magnets controlling mold – **HAN Zefeng**

ID111 Liquid metal flow adhering to curved meter-sized walls and ceilings by electromagnetic and centrifugal forces – **BAKER Nathaniel**

ID113 Analysis of turbulence generated by an Electro vortex Flow – **AL-NASSER Mohamad**

ID114 The effect of forced convection driven by traveling magnetic field on the solidification of Sn-10wt.%Pb alloy: numerical simulation and experimental analysis – **KHELFI Safia**

ID115 Electrohydrodynamic thrusters for air drag reduction – **VOLODIN Juri**

ID116 Effect of aspect ratio on steady liquid metal heat transfer through the electrically-insulating MHD Graetz channel – **BOUABDALLAH Ahcene**

ID117 High Field and High Flux Magnets for MHD and MagnetoScience – **BEAUGNON Eric**