

# Conference Program









MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR, DE LA RECHERCHE ET DE L'INNOVATION



















# MESSAGE FROM THE CHAIRMEN

We are pleased to welcome you to the 11th pamir conference in the city of Reims, an Art and History City with its UNESCO World Heritage sites.

The topics of the Conference are the same of the past editions, but together with the usual topics there are someone that has been only recently introduced, such as the thermoacoustic effect, the born-again interest for the MHD power generation and the magnetoelectrochemistry. The introduction of new topics at each edition of this conference is the signal that MHD is still a child science and it needs to grow. Most part of processes, devices and applications that are presented in this conference are futuristic, but this is the nature of MagnetoHydroDynamics, which very often deals with unexplored territories of science and technology. It is aim of this edition of the pamir to maintain this tradition, and to favour new advances and transnational collaborations in this fascinating field of research.

We are looking forward to meeting you in Reims during pamir 2019 and to sharing a most pleasant, interesting and fruitful conference.

Conference is jointly organized by : SIMaP (Grenoble University), France and LISM (University of Reims Champagne-Ardenne), France

Chairmen: J.P. Chopart, France; A. Alemany, France; A. L. Daltin, France

Co-Chairmen: L. Buligins, Latvia; G. Gerbeth, Germany; A. Montisci, Italy; C. Latgé

Organizing Committee: A.L. Daltin, A. Alemany, J.P. Chopart, B. Collovati, J.M. Patat, F. Lazar, M. Stubner

Secretaries: B. Collovati, France

# PRINCIPAL TOPICS

#### · A - Basic MHD

- A.1 Convection and heat transfer in MHD
- A.2 Dynamo
- A.3 Instability and transition to turbulence
- A.4 Jets and surface waves
- A.5 Modeling of MHD turbulence
- A.6 Numerical and experimental methods
- A.7 Strong magnetic field
- A.8 Novel MHD problems and applications
- · B Thermoacoustic
- B.2 Modelling and numerical simulation 2D and 3D
- B.5 Engines for refrigeration, air conditioning electrical power
- B.6 High and low heat source temperature and power scaling
- B.7 Thermo acoustics for space missions (e.g. propulsion, cooling, etc.)
- · C Space technologies
- C.2 Containment of liquid metals
- C.10 MHD thrusters and solar sails

# · D - Liquid metal technologies for coolant applications

- D.1 MHD pumps and Flow Control
- D.2 Measuring techniques for liquid metal coolants
- D.3 Corrosion by liquid metal
- D.4 Liquid metal mixing

#### • E - Applied MHD for material application

- E.1 Metallurgical applications
- E.2 Magneto-electrolysis
- E.3 MHD in crystal growth
- E.4 Electromagnetic processing of material
- E.6 Magneto static
- · F Ferrofluids
- F.1 Magnetic liquids
- F.2 Electrohydrodynamics
- · G MHD energy conversion
- G.1 Gas-phase generators

# SCIENTIFIC COMMITTEE

Alemany, A. France
Al-Radi, M. France
Aogaki, R. Japan
Blums, E. Latvia
Bouabdallah, A. Algeria
Buligins, L. Latvia
Cagnoud, A. France
Carcangiu, S. Italy
Cebers, A. Latvia
Chopart, J.P. France
Cuevas, S. Mexico

Daltin, A.L. France
Daviaud, F. France
Freibergs, J. Latvia
Frick, P. Russia
Gailitis, A. Latvia
Gerbeth, G. Germany
Kharicha A. Austria
Latgé, C. France
Martemianov, S. France
Mikhailovich, B. Israel
Mistrangelo, C. Germany

Mogi, I. Japan
Molokov, S. Germany
Mond, M. Israel
Montisci, A. Italy
Mutschke, G. Germany
Odenbach, S. Germany
Roux, J.P. France
Sellier, A. France
Skorvanek, I. Slovakia
Sviridov V.G. Russia
Uhlemann, M. Germany
Zabinski, P. Poland

# **WORKING LANGUAGE**

The working language of the conference is English and will be used for all printed matters.

### **CONFERENCE SITE**

The conference will be held at Reims Congress Centre (Centre des Congrès).

It locates near Reims station. The Congress Centre is ideally located in the city centre, a short walk away from the TGV Reims centre station, the main hotels and the vast pedestrian precinct.

Congress center adress : Centre des congrès, 12 Boulevard du Général Leclerc, 51100 Reims, FRANCE

Congress center phone: + 33 (0)3 26 77 44 44

# **REGISTRATION DESK**

All attendees must register upon arrival and receive a badge in order to attend any conference activities. Each registrant will receive the Conference Proceedings in a memory stick at the Registration Desk. The location of the Registration Desk and opening hours are found below.

#### **Date Time Place**

Sunday, 30 June 18:00 - 20:00 Hotel, B&B, 4 rue André Pingat (300 m from Reims Railway station)

Monday, 1 July 09:00 - 12:00 Reims Congress Center

Tuesday, 2 July 09:00 - 12:00 Reims Congress Center

Wednesday, 3 July 09:00 - 12:00 Reims Congress Center

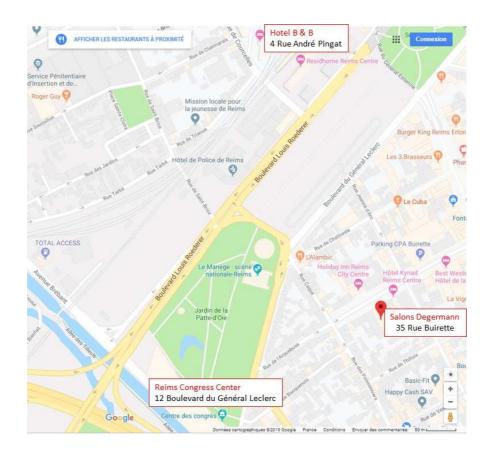
Thursday, 4 July 09:00 - 12:00 Reims Congress Center

# WELCOME COCKTAIL

Sunday 30 June 18:00 - 20:00 at Hotel B&B, 4 rue André Pingat, Reims.

# **GALA DINNER**

Tuesday 2 July 20:00-23:00 at Salons Degermann, 35 rue Buirette, Reims.



# PAMIR 2019 ORAL SESSIONS

		Monday 1st,	July				
		Session 1	Session 2				
09h00	Opening ceremony						
09h40	<b>A. Potherat,</b> <i>United Kingdom</i> : Rotating magnetoconvection from laboratory to planetary cores						
10h20	A1 Low Prandtl Number Rayleigh-Bénard Convection in a vertical Magnetic Field Schindler Felix, Germany		A5	Turbulent Rayleigh-Benard Convection in Strong Vertical Magnetic Field, Zikanov Oleg, USA			
10h40	Break		•	-			
11h00	A1	MHD Taylor-Couette Flow with Insulating Walls at Low Magnetic Reynolds Number Kolesnikov Yuri, Germany	A5	3D structures and turbulence in MHD flows with a small magnetic Reynolds number. <i>Golbraikh Ephim, Israel</i>			
11h20	A1	Magnetoconvection in a vertical pipe with a liquid metal [] magnetic field, Listratov Yaroslav, Russia	A5	Inverse and direct energy cascades in 3D MHD turbulence at low Rm  Potherat Alban, United Kingdom			
11h40	A1	MHD and heat transfer analyses in PbLi radial channels for the EUROfusion WCLL breeding blanket, <i>Urgorri Fernando</i> , <i>Spain</i>		Grid-induced MHD turbulence in a spin- down flow of liquid sodium Frick Peter, Russia			
12h00			A5	Effect of a Static Magnetic Field on Different Turbulent Scales Sukoriansky Semion, Israel			
12h20		Lı	unch				
14h00		<b>F. Stefani,</b> Germany : On self-	created a				
14h40	A1	Numerical study of MHD liquid metal flows in ducts for heat transfer [], Solano-Olivares Veronica, Mexico	A5	Decay of turbulence in a duct with transverse magnetic field Zikanov Oleg, USA			
15h00	A1	Effect of a localized Lorentz force on natural convection thermal plume within a square cavity,  Román José, Mexico	A2	The DRESDYN Precession Dynamo Experiment Pizzi Federico, Germany			
15h20	A1	Convection Caused Symmetry Breaking of Azimuthal Magnetorotational []Taylor Couette Flow, Seilmayer Martin, Germany	A2	A Model for Tidal Synchronization and Modulation of the Solar Dynamo Stefani Frank, Germany			
15h40	A3	A new type of double-diffusive helical magnetorotational []  Mamatsashvili George, Denmark	A2	Model with vertical structure for galaxy dynamo and star formation  Mikhailov Evgeny, Russia			
16h00	A3	Instabilities in Mixed Convection at Moderate and Strong Magnetic Fields Belyaev Ivan, Russia	A2	Resonances In Simple Models Of Stellar Dynamos Sokoloff Dmitry, Russia			
16h20	Break						
16h40	A3	Electrovortex liquid metal flows in cells with localized current supply <i>Kolesnichenko Ilia, Russia</i>	A2	Modelling of Transition Layers in Spiral Galaxies Tatiana Khasaeva, Russia			
17h00	A3	Instability of Swirling Electrolyte Flows Driven Electromagnetically Cuevas Sergio, Mexico	A6	Surface Viscosimetry of Molten Aluminum: The Interesting Role of MHD. Patouillet Kévin, France			
17h20	A4	Electric current distribution during electromagnetic brake in continuous casting Kharicha Abdellah Austria	A6	Numerical simulation and experimental analysis of the dynamic behavior of ternary metal alloy (Ga-In-Sn) flow [] Hiba Brahim, Algeria			
17h40	A4	Counter-moving jets in self similar electrovortex flow between two planes <i>Chudnovsky Alexander, Latvia</i>	A6	Numerical Study of MHD Thin-film Flows for Plasma Facing Components, Siriano Simone, Italia			
18h30		Meeting with A	lgerian r	researchers			

		Tuesday	2 <sup>nd</sup> , July	y		
		Session 1		Session 2		
09h00				ing of electromagnetic processes		
09h40	E1	Numerical Modelling and Optimization of the Electrode Induction Melting for Inert Gas Atomization (EIGA) Spitans Sergejs, Germany	E4	Property-Control in Rapidly Quenched FINEMET Ribbons by Layering and Magnetic Field Processing  Svec Peter, Slovakia		
10h00	E1	Argon Bubble Flow in Liquid Gallium in External Magnetic Field Birjukovs Mihails, Latvia	E4	Experiments on surface wave excitation by combined AC and DC magnetic field <i>Milgravis Mikus, Latvia</i>		
10h20	Molten Silicon Impurity Diffusion Rate Enhancement via Generation of Surface Waves  Zageris Girts, Latvia		E4	Distribution of diamagnetic Cu, ferromagnetic Fe and paramagnetic Ti in Al based alloy solidified in constant magnetic field Dubodelov Viktor, Ukraine		
10h40			Break			
11h00	E1	The influence of orifice types on the flow structure of a bubble-driven [] <i>Richter Thomas, Germany</i>	E4	Liquid Metal Droplet Flow Affected by a Traveling Magnetic Field Karcher Christian, Germany		
11h20	E1	Linear Permanent Magnet Liquid Metal Pump Kalvans Matiss, Latvia	E4	Experimental study of the Effect of Intermittent Electromagnetic Stirring On The Solidification Of Sn-10wt.%Pb alloy.  Zaidat Kader, France		
11h40	E1	A numerical method for electromagnetic and chemical coupling in liquid metal flow []  Fehling Tristan, Germany	E4	Cavitation-driven dispersion of particles in liquid metal melts using contactless electromagnetic vibrations  Pericleous Koulis, United Kingdom		
12h00	E1	Investigation of Particle Dynamics and Solidification in Two Phase System by Neutron Radiography  Baranovskis Reinis, Latvia	E4	Electromagnetic Contactless Method for Metal Matrix Composite Manufacturing Kaldre Imants, Latvia		
12h20	Lunch					
14h00	C. Mistrangelo, Germany: Considerations on magneto-convective flows in model geometries relevant for					
			n applica			
14h40	E1	Titanium reduction process measurement system Khalilov Ruslan, Russia	E4	Numerical and experimental investigation of new skull melting process for continuous pouring of oxides  Nacke Bernard, Germany		
15h00	E1	Effect of a rotating magnetic field on grain refinement of directionally solidified Al-10wt%Cu alloys Zimmermann Gerhard, Germany	A7	Creeping Axisymmetric MHD Flow About A Spherical Bubble Translating Parallel With A Uniform Ambient Magnetic Field Sellier Antoine, France		
15h20	E1	Optimizing the refining process of metallurgical materials by controlling the slag refining []  Nouri Abdallah, Algeria	A7	Behavior of materials in feeble magnetic fluid under high magnetic fields <i>Hirota Noriyuki, Japan</i>		
15h40	E6	Effects of Magnetic Field Annealing on Soft Magnetic Properties and GMI Sensor Characteristics of Co-rich HITPERM Nanocrystalline Alloys Skorvanek Ivan, Slovakia	A7	High Magnetic Fields for MHD  Debray Francois, France		
16h00	E6	Mean axisymmetric magnetohy- drodynamics duct flows Poyé Alexandre, France	A6	Numerical characterization of liquid metal MHD flow in electro-conductive thick orifices with asymmetric contraction <i>Melchiorri Lorenzo, Italia</i>		
16h20			Break	1		
16h40 18h30			ter sessio	on 1  ID society		
20h00			ala dinn	•		
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	Wednesday 3rd, July					
		Session 1	Session 2			
09h00		G.Mutschke, Germany: Study of the M	i effect during electrolytic gas evolution			
09h40	E2	Magnetic Field Assisted Electrodeposition of Co-Ru Nanorods for Water Splitting Reaction Zabinski Piotr, Poland	A6	Numerical Simulation of Turbulent Flow in Electromagnetically Levitated Metallic Droplet Budenkova Olga, France		
10h00	E2	Analysis of mass transport near a conically shaped electrode during electrodeposition assisted by a magnetic field <i>Marinaro Giovanni, Germany</i>	A6	Numerical Investigation of Liquid Metal MHD Flow in Rectangular Channels under Inclined Magnetic Fields for Fusion Relevant Parameters Klüber Viktor, Germany		
10h20	E2	Combining magnetic forces for contactless manipulation of fluids in microelectrode-microfluidic systems Uhlemann Marguitta, Germany	A6	Experimental Investigation of Liquid Metal Pipe Flow in a Strong Non-Uniform Magnetic Field Bühler Leo, Germany		
10h40			Break			
11h00	E2	Collision Process of Ionic Vacancy in MHD Flow Aogaki Ryoichi, Japan	A6	Electromagnetically driven flow of two conducting fluids stratified in a cylindrical cavity: Experimental study  Beltrán Alberto, Mexico		
11h20	E2	Breaking of Odd Magnetic-Field Dependence of Surface Chirality in Magnetoelectrolysis Mogi Iwao, Japan	A6	Contactless inductive flow tomography for a Rayleigh-Bénard setup with aspect ratio 0.5 Wondrak Thomas, Germany		
11h40	E2	Thin films of doped Cu2O electrodeposited under a homogeneous magnetic field Stübner Mathilde, France	A6	Neutron Transmission Imaging Studies on Particle-Laden Liquid Metal Flow Driven by a Disk-Type Rotating Permanent Magnet Induction Pump Lappan Tobias, Germany		
12h00	E2	Zn-Mn alloy electrodeposition under magnetic field <i>Chopart Jean-Paul, France</i>	A6	Experimental investigation of weld pool flow under external DC magnetic field <i>Kaldre Imants, Latvia</i>		
12h20			Lunch			
14H00		I	Excursio	n		

		Thursday	4th, Ju	ly			
	Session 1 Session 2						
09h00		L. <b>Martinelli,</b> France :	Corrosi	on by liquid lead alloys			
09h40	D1	MHD instability of a high flowrate EM pump Vitry Sylvain, France	D3	Teaching Sodium Technology & physicochemistry at Sodium School and within the frame of European Union Projects.  Christian Latge, France			
10h00	D1	MHD amplification of unstable modes by an electromagnetic induction pump Delannoy Yves, France	D3	Weak magnetic field effect on the corrosion behavior of AA 6060 aluminum section wire, in seawater  Slimani Rabeh, Algeria			
10h20	Further Development of TESLA-EMP Facility for Experimental Investigation []  Goldsteins Linards, Latvia		D4	Experimental Study of Heat Transfer Enhancement in Liquid Metal by Rotating Magnetic Field Shukrun Tzahi, Israel			
10h40	Break						
11h00	D1	Experimental investigations of the high temperature sodium facility SOLTEC for corrosion analyses <i>Onea Alexandru, Germany</i>	E3	On the Thermodynamic Approach of the Crystal Growth  Ahcene Bouabdallah, Algeria			
11h20	D1	Experimental and Numerical study of Low Frequency pulsations appearance in PEMDyn ElectroMagnetic pump <i>Martin Lopez Elena, France</i>	E3	Melt Flow in Silicon Crystal Growth From a Granulate Crucible with High Frequency Induction Heating  Dadzis Kaspars, Germany			
11h40	D2	« Zero » Magnetic Field Sensor for Liquid Metal Flow Measurement Buligins Leonids, Latvia	E3	New cold crucible for single crystal growth Zaidat Kader, France			
12h00	D2	Simultaneous Determination of Flow Velocity and Electrical Conductivity of a Liquid Metal using []  Krauter Nico, Germany	Е3	The Effect of Magnetic Fields on Freckle Defect Formation During Directional Solidification of GaIn Alloy Kao Andrew, United Kingdom			
12h20							
14h00							
14h40	F1	On the dynamics of the magnetic separation of rare earth ions from solutions  Lei Zhe, Germany	B2	Simulation of large-scale thermoacousric engines Mousa Mohamed, Egypt			
15h00	F1	Application of Ferrofluids in Electronic Waste Recycling  Sints Viesturs, Latvia	B5	Thermoacoustic stirling heat engine with a phase-adjuster Dhuchakallaya Isares, Thailand			
15h20	F2	Electric actuation of liquid menisci trapped along a capillary array Cardin Nicolas, France	B5	FEM Analysis of a coupled Thermoacoustic-MGD Generator  Montisci Augusto, Italia			
15h40	F2	Effect of an AC Electric Field on a Dielectric Liquid Submitted to a Temperature Gradient  Jawichian Alex, France	B5	A Novel Thermoacoustic Solar Cooler Design Mahmoud Al Radi, France			
	G1	Gas-phase generators  Montisci Augusto, Italia	В6	Experimental InvestigationN of sound parameters in spaceTRIPS facility of thermoacoustic-to MHD energy convertor <i>Artūrs Brēķis</i> , <i>Latvia</i>			
16h20			Break				
16h40		Pos	ter sessi	on 2			

	Friday 5th, July						
		Session 1	Session 2				
09h00		N. Hirota, Japan: Behavior of materials	in feeble	magnetic fluid under high magnetic fields			
09h40	C10	Mini-magnetospheric plasma	A8	New magnetohydrodynamic instability driven by			
		propulsion (M2P2) : a Non		electric current in a co-linear magnetic field			
		Dimensional FEM Study		Priede Janis, United Kingdom			
	Carcangiu Sara, Italia						
10h00	C2 Numerical and experimental		A8	Fluid Flow and Transport Phenomena in Liquid			
		investigations of temperature and		Metal Batteries			
		pressure distributions in an AMTEC		Weier Tom, Germany			
	test cell			·			
		Onea Alexandru, Germany					
10h20	Break						
11h00	Poster price and Closing ceremony						

# PAMIR 2019 POSTER SESSIONS

			Poster Session 1
A1	01	Chen Lu	Fluid Flow and Heat Transfer of Radiation Participating MHD in Enclosed Cavities
A1	02	Lecheheb Sabrina	Effect of aspect ratio on steady liquid metal through the Graëtz flow system in
			MHD
A1	03	Pavlovs Sergejs	Numerical Modelling of Boron Removal from Silicon with Oxidizing Gas Jet
A1	04	Ibrahim Sari	3 D numerical simulation of pure tin solidification under forced convection
A2	05	Avalos Raul	The Disc Dynamo Experiment with Liquid Metal Contacts
A2	06	Mond Michael	Intermittency and multifractality of growth of weak magnetic fields in compressible turbulence
A3	07	Belyaev Ivan	Temperature Fluctuations in a Liquid Metal Flow in a Pipe Affected by a Strong Transverse Magnetic Field
А3	08	Dzelme Valters	Thin liquid metal layer instability in AC magnetic field
A3	09	Garcia Gonzalez Ferran	Experiments and simulations on the magnetized spherical Couette problem
A3	10	Knaepen Bernard	Optimal perturbations and transition of a boundary layer flow under the influence of a spanwise magnetic field
А3	11	Kolesnikov Yuri	Experimental Study of Liquid Metal Film Flow in a Strong Streamwise Magnetic Field
A3	12	Teplyakov Igor	Stability Analysis of the Electrovortex Flow in the External Magnetic Field
A5	13	Barami Eli	Turbulence Anisotropization by Static Magnetic Field
A5	14	Collu Silvia Maria	The wake around a cylinder of any magnetic permeability subjected to an applied magnetic field aligned with the flow
A5	15	Golbraikh Ephim	3D structures and turbulence in MHD flows with a small magnetic Reynolds number.
A6	16	Arslan Sinem	FDM Solution of MHD Duct Flow with Slipping and Variably Conducting Walls
A6	17	Belyaev Ivan	Numerical and Experimental Study of Molten Salt Mixed Convection in the Presence of Magnetic Field
A6	18	Bucenieks Imants	Design concept of induction rotating permanent magnets flow meter with self calibration possibility
Α6	19	Figueroa Aldo	Flow past a Lorentz driven dipole flow
Α6	20	Lima Joao	MHD Flow in a Backward-facing Step: a Hybrid Solution Approach
A6	21	Mikhailovich Boris	On Turbulence Inhomogeneity in Rotating Magnetic Field Driven Flow
A6	22	Politis Gerasimos	Strongly nonlinear shallow-water model of magnetohydrodynamically coupled interfacial gravity waves
A6	23	Tigrine Zahia	3D Computational Study of Aspect Ratio Effect on MHD Liquid Metal Flow in a Rectangular Duct

A6	24	Zibold Alexander	Three-dimensional Hydrodynamical Structures Generated in a Finite-lenght []		
A8	25	Dubodelov Viktor	MHD-Plasma Processing of Aluminum Melts for New Generation of Metallic		
			Materials		
A8	26	Potherat Alban	Experimental investigation of the transition to turbulence in the Plane		
			Magnetohydrodynamic Couette flow		
A8	27	Resagk Christian	Interface deflections induced by local magnetic fields in a liquid metal battery		
			model experiment		
B2	28	Mousa Mohamed	SIMULATION OF LARGE-SCALE THERMOACOUSTIC ENGINES		
B5	29	Laghouati Yassine	Energitical optimization in thermoacoustic engine coupled to an MHD generator		

# Poster session 2

			Poster session 2
C3	30	Upnere Sabine	Monitoring of Flow-Induced Vibration in Rods Bundle
D1	31	Bolotin Kirill	Numerical Design Optimization of Annular Linear Induction Pump
D1	32	Kwak Jaesik	Reduction of End Effect of Annular Linear Induction Magnetohydrodynamic Pump
			for Prototype Generation-IV Sodium-cooled Fast Reactor
D2	33	Guichou Rafael	Eddy Current Flowmeter for detection of bubble in liquid metal : theoretical and
			experimental study
D2	34	Belyaev Ivan	Probe methods of local measurements in non-isothermal turbulent liquid metal
			flow
D2	35	Frédéric Rey	Electromagnetic characterization of liquid corium in induction heated cold crucible
D.4	26	D	AA Tarana at in the Bentilla Shahara da af a tira id AA I Battara
D4	36	Personnettaz	Mass Transport in the Positive Electrode of a Liquid Metal Battery
	27	Paolo	Clar Maria di Elegia de Percelli del la Cadada de Padadia de Padada
E1	37	Freibergs Janis	Slag Motion in Electroslag Remelting Used for Cadmium Reduction from Recycled Batteries
E1	38	Lyu Ze	Experimental study of Lorentz force velocimetry for bubble detection under
		,	ambient magnetic field
E1	39	Baranovskis	Numerical and Experimental Investigation of Permanent Magnet Driven Liquid
		Reinis	Metal Flows
E1	40	Liu Ke	Electro-Vortex Flow in a Cylindrical Container
E1	41	Dubodelov Viktor	Complex of MHD-Devices for Continuous Casting of Metals
E1	42	Siraev Ramil	Dynamics of the Crystallization Front of a Liquid Metal and Heat Transfer in a
			Cylindrical Crucible Under the Action of Electromagnetic Exposure
E1	43	Berenis Didzis	Analytical solution of electromagnetic force and numerical calculation of the flow
			in a conducting cylindrical ring due to a rotating permanent magnet
E1	44	Khripchenko	Effect of reverse regimes of MHD stirring on the structure of crystallizing aluminum
		Stanislav	alloy in crucibles of circular and square cross sections
E2	45	Chopart Jean-Paul	Temperature effect on Zn-Ni alloy electrodeposition under magnetic field
E2	46	Daltin Anne-Lise	Modifying electrodeposited calcium phosphate coating with high magnetic field
E2	47	Kolczyk-Siedlecka	ELECTROLESS METALLIZATION OF 3D PRINTS BY COBALT AND NICKEL COATINGS IN
		Karolina	MAGNETIC FIELD
E2	48	Kutyla Dawid	MODIFICATION OF STRUCTURE AND ELECTROCATALYTIC PROPERTIES OF NI - RU
			ALLOYS OBTAINED BY MAGNETOELECTRODEPOSITION
E2	49	Mutschke Gerd	Study of mixing enhanced by a magnetic field in a microfluidic channel
E2	50	Huang Mengyuan	Numerical simulation of mass transfer and convection near conically shaped
			electrodes under the influence of a magnetic field
E3	51	Dubovikova	Electromagnetic Effects on the Salt Crystallization Process within the Turbulent
		Nataliia	Pipe Flow
E3	52	Dropka Natasha	Oxygen Control in Cz Silicon Growth by Double Frequency Travelling Magnetic
			Fields
E4	53	Dubodelov Viktor	Production of special dispersion-strengthened Cu-based alloys at peculiar MHD
			effects in induction crucible furnaces
E4	54	Mikhailovich	Liquid Metal Flow in a Cylinder Driven by Near-Bottom Rotating Magnetic Field
		Boris	

F4	55	Maiorov Mikhail	Influence of Electrical Discharge Parameters in Metallic Iron Powder on the
			Properties of the Resulting Magnetic Nanoparticles
F4	56	Kronkalns Gunars	Preparation and Properties of Gd/Pd fine Particle Compaund
G2	57	Perez-Orozco Experimental Prototype of an AC MHD generator	
		Adrian	
G2	58	Cuevas Sergio	Liquid Metal MHD Generator for Wave Energy Conversion
G4	59	Lee Geunhyeong	The Variable Optimization of MHD Generator with Electric Output of 10-kW

# **ACCOMPANYING PERSONS**

Registered accompanying persons have Welcome Cocktail included. Social events are also scheduled and require preregistration in advance.

# **COFFEE**

Refreshments and coffee or tea will be served twice a day at the "Foyer haut" Level 2 of the Congress centre, for registered attendees in order to encourage the interaction during the breaks and the poster sessions.

# LUNCHES

Daily Lunches are provided by the organization to the registered attendees at the "Foyer haut" Level 2 of the Congress centre.

# ORAL AND POSTER SESSIONS

Papers will be presented and discussed either orally or in poster sessions.

All oral papers shall be presented exclusively through a computer projector system. The presentation must be in MS Power Point format and should be delivered to the Local Organizing Committee at least 24 hours before the corresponding oral presentation. Make sure to get a back-up file available. In general, each presentation is expected to be 15 minutes long or shorter and to be followed by a 3-5 minutes-long discussion. When you want to use other kinds of software, please contact the organizers well in advance. A PC will be available in each conference room.

Two poster sessions will be held at the "Foyer haut" Level 2 of the Congress centre on Tuesday (Poster session I) and Thursday (Poster session II) from 16:040 to 18:00, respectively. No other sessions are scheduled in parallel. Each poster must be written in English and must fit within a 120 cm (height) X 90 cm (width) A0 format. Presenters are requested to be ready to put up posters on an allocated space recognized by the paper number during lunchtime of the day of presentation.

Each presenter is expected to be present with his/her presentation during the Poster Presentation Session to explain his/her presentation and answer attendees' questions. It is also expected that presenters put the title, authors name, affiliation and contact information on the poster. Posters have to be pasted on the board with the material that will be provided by the organization; adhesive tape, drawing pins, etc. are strictly forbidden. Presenters are responsible for placing their own posters and for taking them down by the end.