PAMIR 2014: PROGRAM OF THE CONFERENCE
University of Latvia (UL), 19 Raina blvd., Riga

Registration and Welcome party: Sunday, June 15, 2014, 18:00 – 20:00, Entrance Hall of UL
Registration: Monday, June 16, 2014, 8:10 – 8:50, Great Hall of UL

	Great Hall		Auditorium No **1**
	Cafeteria, Canteen		Lawyers Conference hall **(153)**
	Small Hall		Academic Club

	16.06.2014 Monday		17.06.2014 Tuesday		18.06.2014 Wednesday		19.06.2014 Thursday		20.06.2014 Friday	
9:00	Opening ceremony 9:00–10:00		DALTIN A-L. A9439AD		LATGE C. A9797CL		FRANCOIS M. A9386AB		STEFANI F. A9470FS	
			E2-E3	E1 -E4	F	D1-D2	B	A5-A6	A7-E5	A2
			A9273IM Mogi I.	A9496YF Fautrelle Y	A9292AV Vinogradova A	A9323SS Smolentsev S.	A9307SB Bühler S.	A9454MS Scepanskis M.	A9749JP Priede J.	A9433PF Frick P.
10:00	CUEVAS S. A9400SC.		A10522AO Aaboubi O.	A9406VD Dubodelov V.	A9324AK Kuznetsov A.	A9380AO Onea A.	A9409NK Kheira N.	A9538RS Stepanov R.	A9338LB Bühler L.	A9403SS Starchenko S.
	A1	A3	A9314PZ Zabinski P.	A9499KP Pericleous K.	A9375GK Kitenbergs G	A9485fm Masson f	A9461YA Abakr Y.	A9337KK Kornet K.	A9568AS Sellier A.	A9429CN Nore C.
10:40	A9325CM Mistrangelo C.	A9296IK Kalashnikov I.	A9489XY Yang X.	A9780KZ Zaidat K.	A9434PK Kopcansky P.	A9371RF Forcinetti R.	A9423JG Goh J.	A9353SP Pavlovs S.	A9732EB Baake	A9318MR Reshetnyak M.
11:00–11:30	BREAK									
11:30	A9334XZ Zhang X.	A9436SH Heitkam S.	A9305RA Aogaki R.	A9342IK Kaldre I	A9377JC Cimurs J.	A9698TM Mirhoseini T.	PLATACIS E. A9717EP		E.A9670SS Spitans S	A9736EM Mikhailov E.
11:50	A9388IB Belyaev I.	A9441EK Kaplan E.	A9376KS Surovovs K.	A9497VB Bojarevics V.	A9464RT Taukulis R.	A9397LG Goldsteins L.	B	A5-A6	A9743AB Bojarevics	A9360AT Tucs A.
12:10	A9543DY Yarimapbu D.	A9460TV Vogt T.	A9462PB Beckstein P	A9349IG Grants I.	A9666CT Tourneur C	A10524SL Lenk S.	A9738PL Lotton P.	A9734VB Bandaru V.	Poster prize and Closing ceremony	
12:30	A9343KA Aujogue K.	A9503ER Ramos E.	A9390YY Yang Y.	A9467ND Dubovikova N.			Reception of invited persons at the French Embassy			
12:50–14:00	LUNCH 12:30 – 14:00									
14:00	SHEBALIN J. A9676JS		A9402MC Cablea M.	A9339OK Kazak O.	EXCURSION to Rundale Palace 14:00–19:30		A9345Kd de Blok K.	A9263MT Tezer-Sezgin M	VISIT to IPUL in Salaspils 14:30–16:00	
	A1	A3	A9493MP Plate M.	A9404DM Musaeva D.			A9484LM Ma L.	A9719OK Kazak O.		
14:40	A9389RR Remecky R.	A9457OK Kirillov O.	A9374KB Bergfelds K.	A9692DH Hernández D.			A9387JG Geneste J-F	A9424DK Krasnov D.		
15:00	A9440JP Pal J.	A9321IC Cortés-Domínguez I	A9472VG Geza V.	A9447SA Alkhalil S.			A9686BM Moudjed B.	A9425MR Ratajczak M.		
15:20	A9419AH Hudoba A.	A9723TB Boeck T.	A9624KD Dadzis K.	A9394YY Yang Y.			A9783RB Baccoli R.	A9358IS Sokolov I.		
15:40	A9393IB Belyaev I.	A9579AK Kharicha A.	A9445AK Kao A.	A9310BM Mikhailovich B			BREAK			
16:00–16:30	BREAK									
16:30	A9362AM Mamykin A.	A9298AH Hasan A.	POSTER SESSION 1 16:30– 18:00		FREE TIME		POSTER SESSION 2 16:30– 17:40			
16:50	A9505TI Teplyakov I.	A9396NB Baker N.								
17:10	A9351JD Delacroix J	A9326NW Weber N.								
17:30	A9232DS Sokoloff D.	A9709MS Seilmayer M.					VISIT TO THE OLD CITY OF RIGA 17:40–19:40			
17:50	FREE TIME				COST MEETINNG					
18:00			Gala Dinner Small Guild Hall 5 Amatu street 19:00–22:00							
20:00										

A.1. Convection and heat transfer in MHD
A.2. Dynamo
A.3. Instability and transition to turbulence
A.5. Modelling of MHD turbulence
A.6. Numerical and experimental methods
A.7. Strong magnetic field
B. Thermo acoustic
D.1. Power generation
D.2. MHD pumps and Flow Cont
F. Ferro fluid
E. 1 Metallurgical applications
E. 2 Magneto-electrolysis
E. 3 MHD in crystal growth
E. 4 Electromagnetic processing of material
E. 5 Electromagnetic levitation

PROGRAM, CHAIRMEN OF MEETINGS

	Great Hall		Auditorium No. 1
	Cafeteria, Canteen		Lawyers Conference Hall (No. 153)
	Small Hall		Academic club

	16.06.2014 Monday		17.06.2014 Tuesday		18.06.2014, Wednesday		19.06.2014 Thursday		20.06.2014 Friday	
9:00	Opening ceremony 9:00-10:00		Aogaki		Bucenieks		Alemany		Frick	
			6	7	12	13	16	17	20	21
			Aogaki	Molokov	Cebers	Bucenieks	Alemany	Zaidat	V. Bojarevics	Gailitis
10: 00	Buligins		Aogaki	Molokov	Cebers	Bucenieks	Alemany	Zaidat	V. Bojarevics	Gailitis
	1	2	Aogaki	Molokov	Cebers	Bucenieks	Alemany	Zaidat	V. Bojarevics	Gailitis
10:40	Buligins	Potherat	Aogaki	Molokov	Cebers	Bucenieks	Alemany	Zaidat	V. Bojarevics	Gailitis
11:00–11:30			8	9	14	15	18	19	22	23
11:30	Buligins	Potherat	Priede	Pericleous	Bums	Montisci	Weisman		Sellier	Frick
11:50	Buligins	Potherat	Priede	Pericleous	Blums	Montisci			Sellier	Frick
12:10	Buligins	Potherat	Priede	Pericleous	Blums	Montisci	Weisman	Karcher	A.Montsci, S. Eckert , A Sellier and JP Chopart Poster prize	
12:30	Buligins	Potherat	Priede	Pericleous						
12:30–14:00			10	11			18	19	Closing ceremony	
14:00	Zhang		Gerbeth	Fautrelle			Weisman	Karcher		
14:20	3	4	Gerbeth	Fautrelle			Weisman	Karcher		
14:40	Mistrangelo	Mikhailovich	Gerbeth	Fautrelle			Balteau-Carles	Mutschke		
15:00	Mistrangelo	Mikhailovich	Gerbeth	Fautrelle			Balteau-Carles	Mutschke		
15:20	Mistrangelo	Mikhailovich	Gerbeth	Fautrelle			Balteau-Carles	Mutschke		
15:40	Mistrangelo	Mikhailovich	Gerbeth	Fautrelle						
16:00–16:30										
16 h 30	Mistrangelo	Bouabdallah	A. Montsci S. Eckert Poster 1				J.P. Chopart A. Sellier Poster 2			
16:50	Mistrangelo	Bouabdallah								
17:10	Mistrangelo	Bouabdallah								
17:30	Mistrangelo	Bouabdallah								
17:50										
18:00										
19:00										
20:00										

Program

Monday, June 16

9:00 – 10:00 **Opening Ceremony**

10:00
A9400SC: Perez-Barrela J., Perez-Espinoza J. E., Ortiz A., Nunez J., Ramos E., Cuevas S.
Instability of electrolytic flow driven by an azimuthal Lorentz force in a cylindrical container

10:40
A9325CM: Mistrangelo C., Buehler L.
Magneto convective instabilities driven by internal uniform volumetric heating

A9296IK: Kalashnikov I.Yu.
Stability investigation of Hartmann flow with the convective approximation

11:00 – 11:30 **Break**
11:30
A9334XZ: Zhang X., Lv X., Zikanov O.

Mixed convection in horizontal ducts with strong transverse magnetic fields

A9436SH: Heitkam S., Sellier A., Schwartz S., Frohlich J.
Forces experienced by an isolating sphere moving close to a wall

11:50
A9388IB: Belyaev I.A., Sviridov V.G., Zagorsky V.S.
Liquid metal downflow in an inclined heated tube affected by longitudinal magnetic field

A9441EK: Kaplan E., Gohl B., Seilmayer M., Stefani F.
A spherical Couette experiment to observe inductionless MHD instabilities at medium Reynolds numbers

12:10
A9543DY: Yarimpabuc D., Tarman H.I., Yildirim C.
A spectral solenoidal-Galerkin method for thermal convection under the influence of rotation and oblique magnetic field

A9460TV: Vogt T., Rabiger D., Eckert S.
Experimental investigation of inertial waves inside a cylindrical liquid metal column

12:30
A9343KA: Aujogue K., Sreenivasan B., Potherat A.
The onset of rotating magnetoconvection at low Ekman

A9503ER: Dominiguez D.R., Roman J.J., Beltran A., Cuevas S., Ramos E.
Experimental observations of the dynamics of wakes of magnetic obstacles

12:50 – 14:00 Lunch

14:00
A9389RR: Jurcisinova E., Jurcisin M., Remecky R., Zalom P.
Turbulent magnetic Prandtl number and spatial parity violation

A9457OK: Kirillov O.N., Stefani F., Fukumoto Y.
Inductionless magnetorotational instability beyond the Liu limit

14:40
A9676JS: Shebalin J.A.
MHD turbulence and magnetic dynamos

15:00
A9440JP: Pal J., Cramer A., Eckert S., Gerbeth G., Grants I.
Model experiments for investigations of heat transfer phenomena in the Czohralski crystal growth

A9321IC: Cortes-Dominiguez I., Burguete J.
Non-axisymmetric resonant modes under oscillating magnetic fields for very low interaction parameter values

15:20
A9419AH: Hudoba A., Molokov S.
Linear stability of convective flow in an infinite horizontal layer with horizontal temperature gradient and vertical magnetic field

A9723TB: Dong S., Krasnov D., Boeck T.
Secondary instability of Hartmann layers in plane MHD channel flow

15:40
A9393IB: Belayev I., Genin L., Listratov Y., Sviridov V., Sviridov E., Ivochkin Y., Razuvanov I.
Liquid metal heat transfer in a tokamak reactor

A9579AK: Kharich A. et al.
Experimental and numerical analysis of free surface deformation in an electrically driven flow

16:00 – 16:30 Break

16:30
A9362AM: Mamykin A., Frick P., Khalilov R., Kolesnichenko I., Pakholkov V., Pavlinov A., Rogozhkin S.
Turbulent convective heat transfer in a long cylinder with liquid sodium

A9298AH: Alfaisal A. Hasan
Magnetogravitational stability of compressible resistive rotating streaming fluid medium

16:50
A9505TI: Ivochkin Y., Teplyakov I., Guseva A., Vinogradov D., Protokovilov I., Tokarev Y.
Influence of the swirled electrovortex flow on the melting of the eutectic alloy In-Ga-Sn

A9396NB: Baker N., Potherat A., Davoust L., Debray F.
Experimental study of forced and freely decaying wall bounded MHD turbulence at low Rm

17:10
A9351JD: Delacroix J., Davoust L.
Impact of surface viscosity upon an annular magnetohydrodynamic flow

A9326NW: Weber N., Galindo V., Grants I., Stefani F., Weier T.
Numerical study of MHD instabilities in liquid metal batteries

17:30
A9232DS: Sokoloff D.
Fluctuations in mean-field dynamos

A9709MS: Seilmayer M., Galindo V., Gerbeth G., Gundrum T., Stefani F., Gellert M., Ruediger G., Schultz M., Hollerbach R.
Experimental results on the azimuthal magnetorotational instability

Tuesday, June 17

9:00
A9439AD: Daltin A.L., Benaissa M., Chopart J.P.
Oxide synthesis by magnetoelectgrodeposition

9:40
A9273IM: Mogi I., Aogaki R., Watanabe K.
Chiral surface formation by magnetoelectrochemical etching

A9496YF: Fautrelle Y., Reinhart G., Budenkova O., Nguyen Thi H., Wang J.
Thermo-electric magnetic effect during solidification: in situ observation and theoretical interpretation

10:00
A10522AO: Ali Omar A.Y., Aaboubi O., Franczak A.
Polyaniline electropolymerization at low mass transport control induced by uniform magnetic field

A9406VD: Dubodelov V.I., Slazhnev M.A., Moyseev Yu.V., Bogdan K.S., Podoltsev A.D., Goryuk M.S.
Influence of MHD processes in working areas of magnetodynamic installations for aluminium alloys on their operating characteristics

10:20
A9314PZ: Żabinski P., Sokol A., Mech K., Tokarski T., Kowalik R.
Magnetic field effect on properties of galvanostatically deposited Co–Pd alloys

A9499KP: Pericleous K., Lebon B., Djambazov G., Bojarevics V.
Induction-driven contactless acoustic wave generation in a crucible

10:40
A9489XY: Yang X., Tschulik K., Uhlemann M., Odenbach S., Eckert K.
Demixing of an initially homogeneous solution of paramagnetic ions in inhomogeneous magnetic fields

A9780KZ: Zaidat K., Fautrelle Y., Hachani L.
Solidification process in a benchmark experiment

11:00 – 11:30 **Break**

11:30

A9305RA: Aogaki R., Morimoto R., Asanuma M., Mogi I., Sugiyama A., Miura M., Oshikiri Y., Yamauchi Y.

Chiral catalytic activities in magnetoelectrochemical etching

A9342IK: Kaldre I. et al.
Segregation control during directional solidification using magnetic field and electric current

11:50
A9376KS: Sabanskis A., Surovovs K., Krauze A., Plate M., Virbulis J.
Modeling of the influence of electromagnetic force on melt convection and dopant distribution during floating zone growth of silicon

A9497VB: Bojarevics V., Pericleous K., Garrido M., Fautrelle Y., Davoust L.
Travelling magnetic field mixing for particle dispersion in liquid metal

12:10
A9462PB: Beckstein P., Galindo V., Gerbeth G.
Electromagnetic flow control in the ribbon growth on substrate (RGS) process

A9349IG: Grants I., Raebiger D., Vogt T., Eckert S., Gerbeth G.
Application of magnetically driven tornado-like vortex for stirring floating particles into liquid metal

12:30
A9390YY: Yang Y., Luo T., Li Y., Feng X.

A9467ND: Dubovikova N., Karcher Ch., Kolesnikov Yu.
Applications of Lorentz force techniques for flow rate control in liquid metals

12:50 – 14:00 Lunch

14:00
A9402MC: Cablea M., Gagnoud A., Nouri A., Delannoy Y., Zaidat K.
Applied travelling magnetic field during silicon solidification in a Bridgman configuration

A9339OK: Kazak O.
Some methods for electrovortex flows control in DC arc furnaces with bottom electrode

14:20
A9493MP: Plāte M., Krauze A., Virbulis J.
3D modeling of the influence of the inductor on the phase boundaries in FZ crystal growth

A9404DM: Musaeva D., Ilin V., Baake E., Geza V.
Numerical simulation of low-frequency pulsed electromagnetic force influence on the melt flow in induction crucible furnace

14:40
A9374KB: Bergfelds K., Virbulis J., Krauze A.
Modelling of pattern formation during the melting of silicon by HF EM field

A9692DH: Hernandez D., Karcher Ch., Thess A.
Local Lorentz force velocimetry using small-size permanent magnet systems

15:00
A9472VG: Geža V., Baake E., Nacke B., Jakovics A.
Anisotropy of flow and transition between mixing regimes in stratified EM force generated flow

A9447SA: Alkhalil S., Thess A., Frohlich T., Kolesnikov Yu.
Lorentz force sigmometry: A novel technique for measuring thermo-physical properties of molten metals

15:20
A9624KD: Dadzis K., Lukin G., Futter W., Bonisch P., Sylla L., Patzold O.
Modeling of melting and solidification processes of photovoltaic silicon in a traveling magnetic field

A9394YY: Yang Y., Feng X., Li Y., Luo T.
Experimental and MHD simulation for grain refinement of alloys under low-voltage pulsed magnetic field

15:40
A9445AK: Kao A., Pericleous K.
Thermoelectrically driven MHD flow field in undercooled crystal growth

A9310BM: Ben-David O., Levy A., Mikhailovich B.
MHD flow under an impact of permanent magnets driving system

16:00 – 16:30 **Break**

16:30 – 18:00 **Poster Session 1**

1	A9552IB	Barmina I.	The electric field effect on combustion dynamics	A.1
2	A9473SE	Eckert S.	Experimental investigation of Rayleigh-Benard convection in a liquid metal layer exposed to a horizontal magnetic field	A.1
3	A9372YL	Listratov Y.	DNS of mixed convection in a liquid metal flow with imposed transverse magnetic field	A.1
4	A9365JV	Valdmanis J.	The impact of EM field on combustion	A.1
5	A9316OZ	Zikanov O.	Mixed convection in vertical ducts with strong transverse magnetic fields	A.1
6	A12378LW	Wenjun L.	Direct numerical simulation of natural convection in rectangular enclosures with strong magnetic fields	A.1
7	A9731LB	Buligins L.	125mm sodium loop for scaled down 4-th generation nuclear reactor thermo - hydraulic equipment testing	A.3
8	A9751JP	Priede J.	The effect of axial electric current on the helical magneterotational instability	A.3
9	A9740TB	Boeck Th.	Stability boundaries of axisymmetric and two-dimensional perturbations in MHD Dean flow	A.3
10	A9492VG	Galindo V.	Numerical simulation of the non-axisymmetric magneto-rotational instability in a dominantly azimuthal magnetic field	A.3
11	A9370BM	Mikhailovich B.	On the flow instability in a helical channel of the induction pump	A.3
12	A9748JP	Priede J.	Two-dimensional nonlinear travelling waves in MHD channel flow	A.3
13	A12347YL	Laghouati Y.	Effect of friction on the evolution of the baroclinic instability	A.3
14	A9468FY	Yahi F.	Magnetic field effect on the onset of helicoidal instability in up and down conical flow system	A.3
15	A9422IM	Melnikov I.	Heat transfer of MHD flow: experimental and numerical research	A.6
16	A9341OS	Semko O.	Electro vortex flows in hemisphere volume with different bottom electrode positions	A.6
17	A9465MS	Starace M.	Ultrasound Doppler velocimetry for liquid metal batteries	A.6
18	A9442RK	Khalilov R.	Magnetic field advection in liquid sodium flow in toroidal channel	A.6
19	A9322BM	Mikhailovich B.	Peculiarities of MHD flow spin-down in an annular gap	A.6
20	A9364AM	Mussa A.	Magnetoplasmadynamic thruster (MPDT) in aerospace industry some new result	A.6
21	A9428AP	Pavlinov A.	Study of turbulence in the presence of strong electromagnetic noise in the MHD stirrer with travelling and rotating magnetic field	A.6
22	A9494AZ	Zibold A.	Acceleration of conduction liquid in the cylinder of final length under the influence of a rotating magnetic field	A.6
23	A9474IK	Krastins I.	Numerical calculations of 3D PbLi MHD flow in a square duct with different wall electrical conductivities	A.7
24	A9498KE	Eckert K.	Time- and space resolved temperature measurements on a periodically magnetized Gadolinium plate	A.8
25	A9785GA	Aiello G.	MHD issues related to the use of Lithium Lead eutectic as breeder material for blankets of fusion power plants	A.8
26	A9308AM	Montisci A.	A Simulink modelization of an inductive MHD generator	A.8
27	A9285JO	Oosterhuis J.	Computational fluid dynamics analysis of the oscillatory flow in a jet pump: the influence of taper angle	B.2
28	A9463YA	Abakr Y. A.	The potential of an air-operated thermoacoustic cooler at low pressure	B.5
29	A9347KD	de Blok K.	The MHD generator - thermoacoustic engine interface	C.1
30	A9412VD	Dubodelov V.	Realization of MHD action at manufacturing of alloys with the special properties aboard the orbital space station	C.1
31	A9724FE	Ebersohn F.	MHD simulation of plasma rocket exhaust	C.1
32	A9346IK	Kaldre I.	Role of thermoelectromagnetic forces in capillary porous systems proposed for liquid metal cooling of fusion reactor components	D.1
33	A9710OL	Lielausis O.	Jet and film flows over solid substrates in strong magnetic fields	D.1

34	A9306IB	Bucenieks I.	Ferrous yoke construction influence on permanent magnets pump efficiency	D.2
35	A9733AG	Gailitis A.	Acoustic MHD generator	D.2
36	A9398LG	Goldsteins L.	A simplified model of centrifugal electromagnetic induction pump with rotating permanent magnets	D.2
37	A9527HK	Kim Hee R.	The viscous effects on a small MHD pump	D.2
38	A9726JK	Kwak Jae Sik	Design of annular linear induction pump for high temperature liquid lead transportation	D.2
39	A9518LB	Buligins L.	META:LIC concept thermo-hydrodynamics testing facility at the Institute of Physics of the University of Latvia (IPUL).	D.3
40	A9344IP	Poddubnyi I.	Experimental research of the heat transfer liquid metal downward flow in a rectangular duct in magnetic field	D.3
41	A9752JP	Priede J.	Self-calibrating phase-shift flowmeter for liquid metals	D.3
42	A9718SI	Ivanov S.	MHD PbLi loop at IPUL	D.3
43	A9490ZT	Tigrine Z.	Liquid metal flow and heat transfer in rectangular duct under the influence of axial magnetic fields	D.4
44	A9720EK	Koroteeva E.	Numerical model of induction pumps on rotating permanent magnets	D.2

19:00 – 22:00 **Gala Dinner. Small Guild Hall, 5 Amatu street, Riga**

Wednesday, June 18

9:00
A9797CL: Latge C., Le Coz P., Gastaldi O., Gauche F., Devictor N.
The ASTRID Project and related R&D on Na technology

9:40
A9292AV: Vinogradova A.S., Naletova V.A.
Ferrofluid bridge between two cones and a cylinder in the magnetic field of a line conductor

A9323SS: Smolentsev S., Abdou M.
Dual-coolant lead-lithium (DCLL) blanket: status and R&D in the area of MHD thermofluids

10:00
A9324AK: Kuznetsov A., Pshenichnikov A.
Segregation in the dipolar hard sphere system: numerical simulation

A9380AO: Onea A., Diez de los Rios Ramos N., Palacios J.L., Hering W.
AMTEC clusters as add-on system for power generation in a concentrated solar power plant

10:20
A9375GK: Kitenbergs G., Perzynski R., Cēbers A., Ērglis K.
Diffusion coefficient of a ferrofluid-water system in a Hele-Shaw cell

A9485FM: Ruault J.-M., Masson F., Worms J.-C., Detsis E., Gaia E., Jansen F., Semenikin A., Tinsley T.
MEGAHIT: Update on the advanced propulsion roadmap for HORIZON2020

10:40
A9434PK: Kopcansky P., Tomasovicova N., Timko M., Gdovinova V., Toth-Katona T., Éber N., Hu C.-K., Hayryan S., Chaud X.
Increase of the sensitivity of liquid crystals to magnetic field due to doping with magnetic nanoparticles

A9371RF: Alemany A., Carcangiu S., Forcinetti R., Montisci A., Roux J.P.
Feasibility analysis of an MHD inductive generator coupled with a thermo acoustic energy conversion system

11:00 – 11:30 **Break**

11:30
A9377JC: Cimurs J., Cēbers A.
Stability analysis of a particle with a finite energy of magnetic anisotropy in a rotating and precessing magnetic field

A9698TM: Mirhoseini T., Alemany A.
Analytical calculations of thermo-acoustic magnetohydrodynamic generator

11:50
A9464RT: Taukulis R., Cēbers A.
Diffusion of magnetotactic bacteria in rotating magnetic field

A9397LG: Goldsteins L., Gailitis A., Buligins L., Fautrelle Y., Biscarrat C.
Analytical investigation of MHD instability in annular linear electromagnetic induction pump

12:10
A9666CT: Alary D., Tourneur C., Reed J., Rechain B., François M.
Thermo-acoustic generators for space missions

A10542SL: Lenk S.
Contactless flow rate sensor for heavy liquid metals

12:30 – 14:00 **Lunch**

14:00 – 19:30 **Excursion to Rundale Palace, http://rundale.net/en/, ~90km from Riga**

18:00 – 20:00 **COST Meeting**

Thursday, June 19

9:00
A9386AB: Betrancourt A., Geneste J.-F., Joubert E., Rechain B., Francois M.-X.
An electric generator using one heat driven thermoacoustic amplifier

9:40
A9307SB: Buhler S., Wilcox D., Oosterhuis J.P., Van der Meer Theo H.
Mean temperature profile at the entrance of a thermoacoustic stacked screen heat exchanger

A9454MS: Ščepanskis M., Nikoluškins R., Bojarevičs A., Beinerts T., Geža V., Jakovičs A., Thomsen K.
Liquid metal flow induced by counter-rotating permanent magnets in a rectangle crucible

10:00
A9409NK: Kheira N.B., Abidat M., Baltean-Carles D., Weisman K., Hireche O.
Numerical simulation of thermoacoustic heat pumping

A9538RS: Stepanov R., Plunian F.
Viscous and joule dissipation ratio in isotropic MHD turbulence

10:20
A9461YA: David W.Y.K., Yousif A. Abakr
Experimental and numerical investigation of the acoustic absorption coefficient at very low frequency

A9337KK: Kornet K., Potherat A.
Spectral direct numerical simulations of low Rm MHD channel flows based on the least dissipative modes

10:40
A9423JG: J.H. Goh, Y.A. Abakr, D.B. Hann
Influence of feedback loop characteristics on the performance of a travelling wave thermoacoustic heat engine

A9353SP: Pavlovs S., Jakovics A., Baake E., Nacke B.
LES study of melt flow driven by combined inductive and conductive power supply in metallurgical MHD devices

11:00 – 11:30 **Break**

11:30
A9717EP: Platacis E.
Liquid metal in nuclear applications

12:10
A9738PL: Lotton P., Poignand G., Penelet G., Bruneau M.
Compact thermoacoustic coolers

A9734VB: Bandaru V., Boeck T., Krasnov D., Schumacher J.
Numerical computation of liquid metal MHD duct flows at finite magnetic Reynolds number

12:30 – 14:00 **Lunch**

Reception of the invited persons at the French Embassy

14:00
A9345KD: de Blok K., Owczarek P., Francois M.-X.
Bi-directional turbines for converting acoustic wave power into electricity

A9263MT: Tezer-Sezgin M., Aydin S. Han
FEM solution of MHD flow equations coupled on a pipe wall in a conducting medium

14:20
A9484LM: Ma L., Weisman C., Baltean-Carles D., Deldende I., Bauwens L.
Numerical simulation of flow dynamics in the periodic regime inside an idealized thermoacoustic engine

A9719OK: Kazak O., Heinicke Ch., Wondrak T., Boeck T.
Electromagnetic interaction of a small magnet and a wall-bounded flow with conducting walls

14:40
A9387JG: Geneste J.-F.
A new architecture for electricity generation onboard telecommunications satellites

A9424DK: Krasnov D., Zikanov O., Boeck T.
Patterned turbulence and relaminarization in MHD pipe and duct flows

15:00
A9686BM: Moudjed B., Botton V., Henry D., Ben Hadid H., Potherat A.
Investigation of acoustic streaming jets in liquid

A9425MR: Ratajczak M., Wondrak T., Timmel K., Stefani F., Eckert S.
Novel induction coil sensor system for contactless inductive flow tomography

15:20
A9783RB: Baccoli R., Mastino C., Baz A.
Marginal condition for spontaneous oscillations of a thermoacoustic engine coupled with a piezoelectric element. Analytical and experimental study

A9358IS: Sokolov I., Thess A., Kolesnikov Y.
Experimental investigation of the Lorentz force response to the time-dependent velocity input while considering finite magnetic Reynolds number

16:00 – 16:30 **Break**

16:30 – 17:40 **Poster Session 2**

1	A9530RA	Avalos R.	Feasible homopolar dynamo with sliding liquid-metal contacts	A.2
2	A9333AG	Giesecke A.	Mean-field coefficients for helical flow fields	A.2
3	A9332AG	Giesecke A.	Numerical simulations for the DRESDYN precession dynamo	A.2
4	A9469TG	Gundrum Th.	Measurements in a downscaled water mockup and numerical simulation for the DRESDYN large scale precession experiment	A.2
5	A9563FD	Debray F.	The French facility for high magnetic fields	A.7
6	A9319DO	Obukhov D.	MHD characteristics of test blanket module elements	A.7
7	A9742AB	Bojarevics A.	Effect of a superimposed DC magnetic field on an AC induction semi-levitated molten copper droplet	E.1
8	A9459VD	Dubodelov V.	Influence of MHD plasma actions in casting magnetodynamic installations on homogeneity of liquid aluminium alloys and their properties in solid state	E.1
9	A9420MK	Khatsayuk M.	Application of MHD technology in non-ferrous metallurgy in Siberia	E.1
10	A9418IK	Klementyeva I.	Free surface deformation and formation of electrical discharges under current carrying fluids in magnetic fields	E.1
11	A9405EW	Wang E.	The influence of processing parameters on fluid flow in continuous casting of mould with vertical electromagnetic brake	E.1
12	A9293PO	Oborin P.	Effectiveness of the use of traveling magnetic field reversals in alloy stirring	E.1

13	A9730AD	Daltin A.-L.	Magneto-induced effect during Mn-doped Cu2O electro-crystallization.	E.2
14	A9446GM	Mutschke G.	How to improve the uniformity of metal deposition at vertical electrodes by electromagnetic forces	E.2
15	A9444GM	Mutschke G.	Numerical simulation of the mass transfer of magnetic species at electrodes exposed to small-scale gradients of magnetic field	E.2
16	A10523AO	Aaboubi O.	Ni-Mn alloys electrodeposition under uniform magnetic field control	E.2
17	A9516RN	Radu A.	Control of convective flows in a rectangular crucible by a special type of electromagnetic stirring	E.3
18	A9427AP	Pavlinov A.	The flow and crystallization of liquid metal in the process of MHD stirring	E.4
19	A9348QW	Wang Q.	Morphology and microstructure evolution of cobalt ferrite thin films prepared by one-step magneto-electrodeposition	E.4
20	A9278SK	Khripchnko S.	Influence of MHD stirring on solidification of aluminum alloy in a cylindrical crucible	E.4
21	A9369BM	Mikhailovich B.	On the influence of MHD flow parameters on the ingot structure	E.4
22	A9482IP	Poznyak I.	Investigation of hydrodynamics of alumina oxide melt in a cold crucible at continuous melting and discharging	E.4
23	A9392YY	Yang Y.	Effects of pulsed magnetic field on microsegregation of solute elements in K4169 Ni-based superalloy	E.4
24	A10316PP	Petitpas P.	Facility and process for moulding high quality titanium parts	E.4
25	A9408MR	Rivero M.	Liquid metal stirring by rotating localized magnetic field in a cylindrical container	E.4
26	A9506VB	Bojarevics V.	Magnetic levitation of weakly conducting liquid droplets	E.5
27	A9320GK	Kronkalns G.	Preparation and properties of platinum-coated magnetite nanoparticles	F.1
28	A9451AL	Lickrastina A.	Experimental testing of the mass exchange on the ferrofluid surface	F.1
29	A9309MM	Maiorov M.l	Magnetic fluid nanoparticle fractionation: experiments and sample analysis	F.1
30	A9728MM	Motozawa M.	Experimental study on forced convective heat transfer and flow resistance of magnetic fluid flow under non-uniform magnetic field	F.1
31	A9286DP	Pelevina D.	The experimental study of the motion of elongated bodies with magnetizable material in rotating magnetic field	F.1
32	A9399LP	Pukina L.	100 mkm thick ferrofluid layer as a resettable memory cell	F.1
33	A9335IS	Segal I.	Magnetite/oleic acid nanoparticles possessing immobilized antitumour tetrahydroisoquinoline derivatives	F.1
34	A9363A	Sidorov A.	Waves in ferrofluid convection induced by inclined magnetic field	F.1
35	A9415VS	Sints V.	Experimental investigation of magnetic nanoparticle transfer within a porous medium and under influence of a magnetic field	F.1
36	A9741AT	Tatulchenkov A.	Numerical study of magnetic field driven micro-convection in the Hele-Shaw cell	F.1
37	A9452MT	Timko M.	Dynamical properties of transformer oil based magnetic fluids	F.1
38	A9354DZ	Zablotsky D.	Pore-scale simulation of magnetosolutal microconvection in ferrofluid saturated porous structures	F.1
39	A9373IZ	Zeidis I.	Deformation of a body with a magnetizable polymer in a uniform magnetic field	F.1
40	A9330QW	Wang Q.	Interface evolution between binary immiscible fluids under weak magnetic field	F.1
41	A9336TV	Volkova T.	Surface shape of a magnetic fluid bridge between plates in the field of an electromagnetic coil	F.1
42	A9508VN	Naletova V.	Deformation of a double-layer liquid drop in an alternating electric field	F.2

17:40 – 19:30 **Visit to the Old City of Riga**

Friday, June 20

9:00
A9470FS: Stefani F., Albrecht T., Gerbeth G., Giesecke A., Gundrum T. , Steglich C., Nore C.
Towards a precession driven dynamo experiment

9:40
A9749JP: Priede J.

Modelling of the Hartmann layers by effective core boundary conditions

A9433PF: Frick P., Denisov S., Noskov V., Stepanov R., Pavlinov A.
Experimental study of turbulent diamagnetism in liquid sodium flow

10:00
A9338LB: Buehler L., Mistrangelo C., Molokov S.
Validity of quasi-2D models for magneto-convection

A9403SS: Starchenko S.V.
Orientation, kinetic and magnetic energy of planetary dynamos, their inversions and asymmetries

10:20
A9507AS: Sellier A.
Motion of an insulating solid particle near a plane boundary under the action of uniform ambient electric and magnetic fields

A9429CN: Nore C., Leorat J., Guermond J.-L., Cappanera L., Luddens F.
Dynamo action in precessing cylinders

10:40
A9732EB: Spitans S., Baake E., Jakovics A., Franz H.
Numerical simulation of electromagnetic levitation in a cold crucible furnace

A9318MR: Reshetnyak M.
Generation of helicities in the rotating layer

11:00 – 11:30 **Break**

11:30
A9670SS: Spitans S., Baake E., Nacke B., Jakovics A.
3D LES two-phase flow simulation of conventional electro-magnetic levitation melting experiment

A9736EM: Mikhailov E.A., Modyaev I.I., Sokoloff D.D.
Dynamo equations with random coefficients

11:50
A9743AB: Bojarevičs A., Beinerts T., Sarma M., Gelfgat Yu.
Model experiment validating the feasibility of a permanent magnet stirrer for large-scale metal melting furnaces

A9360AT: Tucs A., Spitans S., Jakovics A., Baake E.
Numerical modelling of gas bubble dynamics in liquid metal in applied DC magnetic field

12:10 **Poster Prize and Closing Ceremony**

14:30 – 16:00 **Visit to IPUL in Salaspils**

PROGRAM OF THE SPACE TRIPS
SUMMER SCHOOL ON

THERMO ACOUSTIC AND SPACE TECHNOLOGIES

RIGA, JUNE 17-20, 2014

French Institute, 59 Elizabetes street, LV-1050 Riga

SEVENTH FRAMEWORK PROGRAMME
Theme 9: SPACE

	Title	9h/9h45	9h45/10h30	10h30/11h15		11h30/12h15	12h15/13h
Monday FREE							
Tuesday June 17	THERMO ACOUSTIC	Progress and engineering of thermoacoustics MAURICE FRANCOIS	Modelling and numerical simulation 2D and 3D DIANA BALTEAN-CARLES	Redressed flows in thermo acoustic HÉLÈNE BAILLET	BREAK	Thermo acoustic for cold production KEES DE BLOK	Thermo acoustic for electrical energy production PIEERIK LOTTON
Wednesday June 18	THERMO ACOUSTIC	Cold source in space ENRICO SACCHI	Heat pipe for thermo acoustic devices for high or low temperature DENIS CLODIC	The MHD generator ANTOINE ALEMANY	BREAK	Coupling MHD/TA ARMAND KRAUZE	An introduction to space nuclear power systems KEITH STEPHENSON
Thursday June 19	SPACE TECHNOLOGIES	The ESA nuclear power development programme KEITH STEPHENSON	MHD thrusters for space propulsion ALAIN DUPAS	Some elements of space reactor and radio isotopic power system GERARD POLI	BREAK	Long term trips involving nuclear sources FREDERIC MASSON	Nuclear testing, integration, launch and decommissioning TIM TINSLEY
Friday June 20	NUCLEAR POWER SYSTEMS	CNRS program and propulsion using Hall effect JEAN PIERRE BŒUF	Liquid metal coolant technologies CHRISTIAN LATGE	BREAK	Sciences in micro gravity JACQUELINE ETAY	Magnetic fields in space: phenomena and related lab experiments FRANCK STEFANI	

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