WEDNESDAY 15 JULY

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08:00 - 09:15	REGISTRATION AND BREAKFAST (Hall Institut Océanographique, 195 rue St. Jacques)
	Plenary Session Grand Amphithéatre Chairman: J.E.Wesfreid
09:15 - 09:45	WELCOME
09:45 - 10:45	Gone with the wind *David Queré,* *Physique et Mécanique des Milieux Hétérogenes* *ESPCI- Paris*
10:45 - 11:45	The role of planetary scale instability in Earth's climate *Brian Farrell* *Harvard University-Cambridge*
11:45 - 12:15	Walk to ECOLE DES MINES (60, Boulevard St.Michel)
12:15 - 14:00	LUNCH

WEDNESDAY 15 JULY

	Shear Flows Room A (108) Chairman: H. Blackburn	**MHD** Room B (118) Chairman: O. Zikanov	**Flow Control** Room C (Le Chatelier) Chairman: D. Sipp
14:00 - 14:15	Properties of the centrifugal instabilities observed in an incompressible open cavity flow *Christelle Douay*	DNS of natural convection in liquid metal with strong magnetic fields in rectangular box *Wenjun Liu*	Bifurcation and control of a 3D bluffbody flow at large Reynolds numbers *Olivier Cadot*
14:15 - 14:30	Frequency-selection mechanism in incompressible open-cavity flows via reflected instability waves *Florian Tuerke*	Onset of 2D and 3D oscillations on Rayleigh-Bénard convection with horizontal magnetic field *Sven Eckert*	Investigation of circular-cylinder VIV passive-control device using flow sensitivity analysis *Gustavo Patino*
14:30 - 14:45	Intermittency and transition to chaos in the cubical lid-driven cavity flow *Jean-Christophe Loiseau*	Elevator mode convection in flows with very strong magnetic fields *Oleg Zikanov*	A linearized approach for the control of aerodynamic forces in flow past a square cylinder *Philippe Meliga*
14:45 - 15:00	Oscillatory flow regime in a rotating lid driven cubical cavity (RLDCC) flow *Nagangudy Panchapakesan*	Convection in a duct with strong axial magnetic field *Xuan Zhang*	Second-order sensitivity of parallel shear flows and optimal spanwise-periodic flow modifications *Edouard Boujo*
15:00 - 15:15	Optimal linear growth in high Atwood number Kelvin–Helmholtz billows *Laurent Joly*	Polygons in swirling liquid metal free surface flow driven by rotating permanent magnets *Sergio Cuevas*	Forced reverse transition in pipe flow *Jakob Kühnen*
15:15 - 15:30	Elementary stratified flows with stability at low Richardson number *Ricardo Barros*	MHD Instabilities in electrically driven rotating jets *Chiara Mistrangelo*	Nonlinear model reduction for large-scale flows using the POD-DEIM technique *Peter Schmid*
15:30 - 15:45	Instability of a stably stratified boundary layer on a vertical wall *Jun Chen*	MHD flow instability in ducts with conducting walls *Dmitry Krasnov*	Feedback Stabilization of an oscillating vertical cylinder by POD reduced-order model *Laurent Cordier*
15:45 - 16:00	Role of mean flow Hessian tensor in the secondary instability of streamwise vortices *Mohammed Afsar*	MHD instabilities in boundary layers aligned with a magnetic *Leo Bühler*	Experimental application of a observer to capture and predict the dynamics of a flat-plate boundary layer *Eliott Varon*
16:00 - 16:30	**COFFEE BREAK**		

WEDNESDAY 15 JULY

	Convection Room D (Charpak-Rateau) Chairman: M. Navarro	**Films and Drops** Room E (Schlumberger) Chairman: A. Oron	**Active Matter** Room F (Allais) Chairman: E. Clement
14:00 - 14:15	Drifting localized structures in natural doubly diffusive convection *Alain Bergeon,*	Multiple propagation modes in Hele-Shaw cells of variable depth *Andrew Hazel*	Collective swimming of bacteria in anisotropic liquids *Igor Aronson*
14:15 - 14:30	Secondary convective and chemoconvective structures in boundary layers of a counter propagating fluxes *Vitaly Demin*	Gravity-driven film flow over surfaces: free-surface disturbance vs internal flow topology *Sergii Veremieiev*	Symmetry-breaking phase transitions in highly concentrated semen *Franck Plouraboue*
14:30 - 14:45	Cross-diffusion driven buoyant instabilities *Jorge Carballido Landeira*	Phenomena appearing in the linear stability of gravity-driven films over strongly undulated inclines *Daniel Reck*	Instabilities and the emergent dynamical structures in active liquid crystal *Xiaqing Shi*
14:45 - 15:00	Differential diffusive instabilities of miscible two-layer stratifications in porous media and Hele-Shaw cells *Shyam Gopalakrishnan*	Does the topography's specific shape matter in general for the stability of film flows? *Mario Schörner*	Active nematics at interfaces *Francesc Sagues*
15:00 - 15:15	Convective flows of colloidal suspension in an inclined closed cell *Boris Smorodin*	Nonlinear dynamics of a heated thin liquid film over asymmetric topography in a bi-layer system *Valeri Frumkin*	Dynamic Clustering in Suspension of Motile Bacteria *Hepeng Zhang*
15:15 - 15:30	Effect of slight inclination on the onset of convection in positive separation ratio binary mixtures *Arantxa Alonso*	Can vibrations control drop motion? *Rodica Borcia*	Destabilization of a flow focused suspension of magnetotactic bacteria *Cecile Cottin-Bizonne*
15:30 - 15:45	A new instability mode in a driven granular gas: athermal and thermal convection *Meheboob Alam*	Dynamics of large droplet on a vibrating elastic substrate *Pei-Hsun Tsai*	Jet formation of micro-algae in a channel. Stability and dynamics *Philippe Peyla*
15:45 - 16:00	P1:Convective motion in storage of CO_2 *Parama Ghoshal* P2:Description of two-layer fluid flows with evaporation at interface *Victoria Bekezhanova* P3:Stability and convection in vertically vibrated granular bed *Meheboob Alam*	Mass variation of a thin liquid film driven by an acoustic wave *William Batson*	Velocity condensation phenomena for magnetotactic bacteria *Jean-Francois Rupprecht*
16:00 - 16:30	**COFFEE BREAK**		

WEDNESDAY 15 JULY

	Shear Flows Room A (108) Chairman: O. Marquet	**MHD** Room B (118) Chairman: C. Nore	**Flow Control** Room C (Le Chatelier) Chairman: L. Mathelin
16:30 - 16:45	Triadic resonance instabilities in weakly precessing cylinder flows *Hugh Blackburn*	Optimized dynamos in finite fluid domains and in shear flows *Wietze Herreman*	Asynchronous Sparse Sampling for Classification and Reconstruction of Time-Dependent Fluid Flows *Nathan Kutz*
16:45 - 17:00	Convective instability and transient growth in steady and pulsatile flows in a constricted channel *Bruno Carmo*	On the edge of an Inverse Cascade *Kannabiran Seshasayanan*	Big Data solutions for active flow control *Steven Brunton*
17:00 - 17:15	Topological bifurcations in boundary layer eruption *Morten Andersen*	Momentum based approximation of incompressible multiphase flows *Loïc Cappanera*	State aggregation and reinforcement learning for the closed-loop control of black-box systems *Florimond Gueniat*
17:15 - 17:30	Formation of singularities on the interface between two ideal fluids due to the Kelvin-Helmholtz instability *Nikolay Zubarev*	Tayler instability in liquid metal columns and liquid metal batteries *Caroline Nore*	P4:Closed-loop control in the cavity flow *Mohamed-Yazid Rizi* P5:Control of oscillations by plasma *Federico Castro* P6:Global linear stability analysis of the VIV of a circular cylinder Bruno Carmo
17:30 - 17:45	Effects of base flow modifications on receptivity: flow past a backward-facing step *Xuerui Mao*	The Tayler Instability in Liquid Metal Batteries and dynamo theory *Norbert Weber*	P7: Measures to identify chaos *Tony John* P8:Persistent homology for dynamics *Michael Schatz* P9:Computation of Hopf bifurcation Gregory Girault
			Computational Methods Chairman: J.C Loiseau
17:45 - 18:00	Delaying natural transition of a boundary layer using smooth steps *Hui Xu*	Dissipation-induced instabilities in magnetized flows *Oleg Kirillov*	An HPC implementation to efficiently compute 3D steady-state bifurcations *Marc Medale*
18:00 - 18:15	Instabilities in the asymptotic suction boundary layer over a permeable, compliant wall *Franck Pluvinage*	Bifurcation scenario and transport properties of the azimuthal magnetorotational instability *Anna Guseva*	A mathematical model to advance the knowledge of silicic magmas *Francisco Pla*
18:15 - 18:30	Transition scenario for a flat-plate boundary layer forced by roughness element *Tristan Cambonie*	Magnetically modulated Taylor-Couette flow *Rainer Hollerbach*	Predictability of extreme values in geophysical models *Alef Sterk*
18:30 - 18:45	P10:Transition in a T-micromixer *Tobias Schikarski* P11:Stratified two-phase flows in channels *Ilya Barmak* P12:Shear instabilities in a polytropic atmosphere *Veronika Witzke*	Angular momentum transport and mixing in hydromagnetic Taylor-Couette flows *Marcus Gellert*	Fast time-integration of PDEs combining POD and Galerkin projection *Jose Vega*
18:45 - 19:00		P15:The alpha effect in the von Karman Sodium experiment *Jacobo Varela* P16:Wave instability of a liquid in a rotating magnetic field *Alexander Zibold*	
19:15 - 20:45	**COCKTAIL**		

WEDNESDAY 15 JULY

	Convection Room D (Charpak-Rateau) Chairman: P. Beltrame	**Films and Drops** Room E (Schlumberger) Chairman: E. Benilov	**Active Matter** Room F (Allais) Chairman: I. Aronson
16:30 - 16:45	Convective instabilities in evolving systems *Oliver Kerr*	Why does the capillary bridge break? *Jerome Hoepffner*	Suppression of resistance to flow in bacterial suspensions *Héctor Matías López*
16:45 - 17:00	Resonant tertiary patterns in inclined layer convection *Priya Subramanian*	Washing wedges: a capillary instability *Ludovic Keiser*	Self-assembled active colloidal molecules *Rodrigo Soto*
17:00 - 17:15	Thermoconvective instabilities to explain the main characteristics of a dust devil-like vortex *Maria Cruz Navarro*	Bifurcation analysis of the Marangoni instability in a heated layer of surfactant solution with Soret effect *Matvey Morozov*	Self-propelled hard discs: non-conservation of momentum and transition to collective motion *Khanh-Dang Nguyen Thu Lam*
17:15 - 17:30	Secondary whirls in thermoconvective vortices in a cylindrical annulus heated from below *Damian Castaño*	Instabilities and bifurcations in drops and thin films subject to an electric field *Marco Fontelos*	Collective response and emergent structures in microswimmer suspensions *Ignacio Pagonabarraga*
17:30 - 17:45	Conductive versus convective heat transfer in flows between cylinders *Marc Avila*	Jetting of a magnetic liquid under an applied magnetic field gradient *Shahriar Afkhami*	Navigation of E. Coli through a funnel *Ernesto Altshuler*
17:45 - 18:00	Flow reversals in a square Rayleigh-Bénard cell with modified boundary conditions *Andrés Castillo-Castellanos*	Thin nematic films on liquid substrates: static properties and hydrodynamics at 2D *Ulysse Delabre*	Living on the edge: traffic of E. coli bacteria in a confined flow *Nuris Figueroa Morales*
18:00 - 18:15	A model for reversals in turbulent Rayleigh-Bénard convection *Berengere Podvin*	Effect of electric field on two immiscible liquids flowing in a micro channel *Pinar Eribol*	Dynamical hysteresis is swarms of active particles in alternating external fields *Vladimir Lobaskin*
18:15 - 18:30	Lagrangian study of Rayleigh-Bénard convection *Sergio Chibbaro*	New families of nonlinear gravity-capillary waves *Jean-Marc Vanden-Broeck*	Emergence of flocking states in numerical simulations of spherical squirmers *Jean-Baptiste Delfau*
18:30 - 18:45	Routes to chaos via three-frequency tori in a differentially heated cavity *Ludomir Oteski*	P13:Stability and rupture of nanoscaled liquid sheets *Nandu Gopan* P14:Influence of initial geometry on the evolution of liquid filaments *Lou Kondic*	Transition between synchronisation states of fluid-coupled oscillators *Marco Polin*
18:45 - 19:00	Transient convective flows in a spherical gap under microgravity conditions *Christoph Egbers*		Rheology of active granular matter *Anton Peshkov*
18:45 - 18:55			P17:Density shocks in microswimmers *Eva Kanso* P18:Magnetocapillary microswimmers *Galien Grosjean*
19:15 - 20:45	**COCKTAIL**		

THURSDAY 16 JULY

	Transition to Turbulence Room A (108) Chairman: M. Avila	**MHD** Room B (118) Chairman: W. Herreman	**Computational Methods** Room C (Le Chatelier) Chairman: J-C Robinet
09:00 - 09:15	Spot growth in plane Couette flow *Romain Monchaux*	Time dependent and 3D structure of melt flow of silicon under transverse magnetic fields *Kakimoto Koichi*	A novel method for optimal forcing of wall-bounded shear flows using Stokes preconditioner *Mattias Brynjell-Rahkola*
09:15 - 09:30	The onset of turbulence in Couette flow *Björn Hof*	Numerical simulation of flux expulsion in MHD channel flow *Vinodh Bandaru*	Resolvent analysis of a nonlinear 3Dl cavity flow *Francisco Gomez-Carrasco*
09:30 - 09:45	Turbulent bands in a planar shear flow without walls *Matthew Chantry*	Flow regimes in an electromagnetically forced circular Couette system *Jean Boisson*	Is the frequency of time-periodic instabilities selected by the mean flow or the eddies interaction? *Olivier Marquet*
09:45 - 10:00	New experiment in shear flows with zero mean velocity *Lukasz Klotz*	Effect of outer rotation on turbulence and stability in the Derviche Tourneur Sodium Experiment *Elliot Kaplan*	How to characterize the instability source in linear and nonlinear global modes *Lutz Lesshafft*
10:00 - 10:15	The Secondary Instability of Transient Growth in Couette Flow *Michael Karp*	Shear flow MHD turbulence in the low magnetic Prandtl limit & astrophysical applications *Héloïse Méheut*	On the DMD of transient dynamics in unsteady laminar flows *Soledad Le Clainche Martinez*
10:15 - 10:30	Stability analysis of turbulent streaks *Frédéric Alizard*	Effects of inhomogeneities on the dynamo instability *Francois Petrelis*	Application of bifurcation analysis methods for the problem of oscillations of the circular cylinder *Artem Nuriev*
10:30 - 11:00	**COFFEE BREAK**		

THURSDAY 16 JULY

	Geophysical Eddies Room D (Charpak-Rateau) Chairman: A. Stegner	**Films and Drops** Room E (Schlumberger) Chairman: S. Wilson	**Active Matter** Room F (Allais) Chairman: R. Godoy-Diana
09:00 - 09:15	Beta-effect on the linear and nonlinear instability of the flow around a rigid circular wall *Ziv Kizner*	Travelling waves over falling liquid films at moderate Reynolds and high Peclet numbers *Christian Ruyer-Quil*	Bacteria self-assembly in heterogeneous environments *Carine Douarche*
09:15 - 09:30	Instabilities of tropical hurricanes and their nonlinear saturation in moist-convective rotating shallow water model *Vladimir Zeitlin*	On the topological structure of traveling solutions of wavy flowing down films *Dmitry Arkhipov*	Collisions of deformable cells lead to collective migration *Falko Ziebert*
09:30 - 09:45	2D model of processes in the lower atmosphere with inhomogeneity of temperature and humidity *Konstantin Shvarts*	Steady and active control of free-surface flow down an inclined plane *Alice Thompson*	Amoeboid motion in a confined geometry *Hao Wu*
09:45 - 10:00	Stability of differentially heated flow from a rotating sphere *Serge D'Alessio*	Parallel DNS of 3D drop impact on a wavy inclined liquid film *Lyes Kahouadji*	**Bio-Locomotion** Mechanosensing and microscale patches in phytoplankton *Idan Tuval*
10:00 - 10:15	Multi-scale flow phenomena in the thermally driven rotating annulus *Thomas von Larcher*	Phase diagram for the onset of circulating waves and flow reversal in inclined falling films *Benoit Scheid*	Osmotic self-propulsion of slender particles *Ehud Yariv*
10:15 - 10:30	Baroclinic instability and double-diffusive convection in a rotating laboratory tank *Miklos Vincze*	Hydrodynamic Slip: Origins and Effects in Micro- and Nanoscopic Polymer Flows *Joshua D. McGraw*	Symmetry-breaking and self-propulsion of autophoretic particles *Sebastien Michelin*
10:30 - 11:00	**COFFEE BREAK**		

THURSDAY 16 JULY

	Transition to Turbulence Room A (108) Chairman: D. Barkley	**Electrohydrodynamics** Room B (118) Chairman: G. Yossifon	**Computational Methods** Room C (Le Chatelier) Chairman: J-C Robinet
11:00 - 11:15	Transition to turbulence in oscillatory flow *Damien Biau*	Equilibrium electro-convective instability *Boris Zaltzman*	Continuation of bifurcations of periodic orbits in fluid dynamics *Juan Sanchez Umbria*
11:15 - 11:30	Transition to turbulence in pulsating pipe flow *Duo Xu*	Driving factors of electro-convective instability in concentration polarization *Isaak Rubinstein*	Linear stability analysis of natural convection flow in the presence of immersed bodies of arbitrary shapes *Yuiri Feldman*
11:30 - 11:45	The 1:2 spatial resonance in cylindrical flows driven by sidewall oscillations *Carles Panades Guinart*	Direct visualization of ion concentration in a porous medium *Daosheng Deng*	A symmetry-preserving Galerkin/POD reduced order model applied to a Rayleigh-Bénard problem *Henar Herrero*
11:45 - 12:00	Recurring instabilities in rotating channel flow DNS *Geert Brethouwer*	3D flow instability near perm-selective membrane under shear flow *Van-Sang Pham*	Localized structures in gaseous combustion *Edgar Knobloch*
12:00 - 12:15	The onset of localized solutions in rotating plane Couette flow *Matthew Salewski*	Which factor is more important for the development of electroconvection in ion exchange membrane systems? *Natalia Pismenskaya*	Bifurcations and routes to chaos in thermoacoustic systems *Alessandro Orchini*
12:15 - 12:30	The emergence of a homoclinic tangle in rotating plane Couette flow *Tobias Schneider*	P19:Influence of electroconvection on scaling in electrodialysis *Natalia Pismenskaya* P20:Transfer in electrodialysis cell *Victor Nikonenko*	Global stability analysis of microcombustion *Michele Alessandro Bucci*
12:30 - 14:00	**LUNCH**		

THURSDAY 16 JULY

	Geophysical Eddies Room D (Charpak-Rateau) Chairman: P. Billant	**Films and Drops** Room E (Schlumberger) Chairman: R. Narayanan	**Bio-locomotion** Room F (Allais) Chairman: B. Thiria
11:00 - 11:15	Inertial-centrifugal instability of circular oceanic vortices: simple stability criteria *Alex Stegner*	Liquid films with order-one Reynolds numbers *Eugene Benilov*	Bifurcation structure of localized phototactic bioconvection *Makoto Iima*
11:15 - 11:30	The effect of rotation on the stability of pancake vortices in stratified fluids *Eunok Yim*	Thin liquid films in confined geometries *Georg Dietze*	Flagellated bacteria swimming in polymer solutions *Vincent Martinez*
11:30 - 11:45	A laboratory study of floating lenticular anticyclones *Anne Cros*	High inertial free-surface jet flow near channel exit *Roger Khayat*	Colloidal Microworms Propelling via a Cooperative Hydrodynamic Conveyor-Belt *Pietro Tierno*
11:45 - 12:00	Interaction between surface mesoscale features and a slope current (the Persian Gulf water outflow) *Xavier Carton*	Hydraulic jumps on an incline, under total or partial wetting conditions *Laurent Limat*	Control of micro-swimmers *Jerome Loheac*
12:00 - 12:15	Large deviations of atmospheric jets *Tomas Tangarife*	Constant Froude number in a circular hydraulic jump and its implication on the jump radius selection *Alexis Duchesne*	Self-assembling particles for magnetocapillary swimmers *Nicolas Vandewalle*
12:15 - 12:30	Surface semi-geostrophic turbulence: freely evolving dynamics *Gualtiero Badin*	Stick-slip motion and hysteresis behaviour of droplets with volume variation *Marc Pradas*	Jumping of water striders on water *Eunjin Yang*
12:30 - 12:45	The rôle of the complete Coriolis force of ageostrophic instabilities of jets *Marine Tort*		
12:30 - 12:45	**LUNCH**		

THURSDAY 16 JULY

	Transition to Turbulence Room A (108) Chairman: L. van Veen	**Electrohydrodynamics** Room B (118) Chairman:B. Zaltzman	**Jet and Wakes** Room C (Le Chatelier) Chairman: L. Lesshafft
14:00 - 14:15	Transition to and from turbulence in parallel boundary layer flows *Yohann Duguet*	Dynamics of micro-vortices at a charge-selective interface *Peichun Amy Tsai*	Kelvin-Helmholtz Instability and Bénard-Von Karman vortex street in a confined geometry *Luc Lebon*
14:15 - 14:30	Exploration of the phase space for a boundary-layer flow with wall suction *Stefania Cherubini*	Resolving Overlimiting Current Mechanisms in Micro-Nanochannel Interface Devices *Gilad Yossifon*	Topological fluid mechanics of the formation of the Karman-vortex street *Matthias Heil*
14:30 - 14:45	Localized wall-mode and free-stream coherent structures in the asymptotic suction boundary layer *Tobias Kreilos*	Numerical illustration of flow bifurcation in a fluid subjected to unipolar injection *Tony Sheu*	Interfacial perturbations in oil-water flows induced by bluff body *Maxime Chinaud*
14:45 - 15:00	Transition to turbulence via transient growth - comparison between Couette and Poiseuille flows *Federico Roizner*	Nonlinear electrokinetic particle motions inside ion concentration polarization layer *Jae Suk Park*	Asymmetric states in the wake of two side-by-side cylinders *Flavio Giannetti*
15:00 - 15:15	A hairpin-shaped optimal perturbation in a plane Poiseuille flow *Mirko Farano*	Earlier onset of electroconvection in an electrodialysis cell under pulsed electric field *Victor Nikonenko*	Bifurcations and instabilities in the density stratified viscous fluid flows around a sphere and a square cylinder *Pavel Matyushin*
15:15 - 15:30	New travelling wave solutions in transitional channel flow *Masato Nagata*	P21:Field control on an ion-selective granule *Vladimir Shelistov* P22:Linear stability of films of electrolyte *Georgy Ganchenko* P23:New instability in microscale *Evgeny Kalaidin*	Mode selection in swirling coaxial jets *Jessie Weller-Calvo*
15:30 - 15:45	Lower and upper branch states in reduced parallel shear flows *Cedric Beaume*	P24:Field-Induced Mobility Change Model *Hyomin Lee* P25:Flow and transport of electrolytes *Ignacio Pagonabarraga*	Instabilities of the wake behind a rotating sphere *Maciej Skarysz*
15:45 - 16:00	Extending Barkley's Pipe Model *Kimberly Short*		Effect of a cylindrical trailing edge on the wake stability behind spinning bodies *Carlos E. Manglano-Villamarín*
16:00 - 16:30	**COFFEE BREAK**		

THURSDAY 16 JULY

	Geophysical Eddies Room D (Charpak-Rateau) Chairman: P. Le Gal	**Films and Drops** Room E (Schlumberger) Chairman: M. Bestehorn	**Propulsion** Room F (Allais) Chairman: R. Godoy-Diana
14:00 - 14:15	A theory for the emergence of large scale structure in barotropic turbulence *Nikolaos Bakas*	"Anti-surfactant" behaviour of salt solutions *Stephen Wilson*	Stable versus Maneuverable Hovering *Eva Kanso*
14:15 - 14:30	Internal wave attractors seen as optimal growing structures *Ion Dan Borcia*	The Stability of the Static Pendant Drop Ranga Narayanan	Onset of self-propulsion for vertically flapping wings: a Floquet analysis *Damien Jallas*
14:30 - 14:45	Energy cascade in internal wave attractors *Christophe Brouzet*	Influence of Slip on the Plateau-Rayleigh Instability on a Fibre *Oliver Bäumchen*	The effect of input perturbation on a heaving panel *Megan Leftwich*
14:45 - 15:00	Global stability of an internal wave beam *Gaëtan Lerisson*	Emergence of the bifurcation structure of a Langmuir-Blodgett transfer model *Michael Koepf*	Fast and efficient swimming of a plunging elastic swimmer *Alexander Alexeev*
15:00 - 15:15	A model experiment of the quasi-biennial oscillation *Benoit Semin*	Flow reversing: a precursor to droplet splashing *Christophe Josserand*	On the importance of resistive thrust for inertial undulatory swimmers *Miguel Pineirua*
15:15 - 15:30	Generation of wind waves over a viscous liquid *Anna Paquier*	Drainage of the air film during the impact of droplets on flowing liquid films *Zhizhao Che*	Numerical simulation of vortex-induced drag of elastic swimmers *Thomas Engels*
15:30 - 15:45	Numerical Simulations of Sediment Resuspension by Internal Wave Breaking *Jair Reyes Olvera*	The stability of a rising droplet: an inertialess by-pass transition mechanism *Lailai Zhu*	Instability of a wake produced by a self-propelled body *Muhammed Arbie*
15:45 - 16:00	Wave-current interaction as an example of a spatial bifurcation *Germain Rousseaux*	Universal scaling of liquid films relaxing towards droplet shapes *Marco Rivetti*	Scaling macroscopic aquatic locomotion *Médéric Argentina*
16:00 - 16:30	**COFFEE BREAK**		

THURSDAY 16 JULY

	Transition to Turbulence Room A (108) Chairman: S. Cherubini	**Instabilities in Nature** Room B (118) Chairman: P. Claudin	**Jet and Wakes** Room C (Le Chatelier) Chairman: L. Lesshafft
16:30 - 16:45	Transition to turbulence in a circular pipe flow with a gradual expansion *Kamal Selvam*	Eruptive processes in volcanoes: the key role of bubbles in driving eruptions *Sylvie Vergniolle*	Numerical investigation of gravity influence on the Rayleigh capillary jet instability *Maxime Rosello*
16:45 - 17:00	A mechanism for streamwise localisation in shear flows *Fernando Mellibovsky*	Experimental instability of internal gravity wave beams: mean flow and subharmonic generation *Thierry Dauxois*	A Theory for the Formation and Equilibration of Stacked Jets from Stratified Turbulence *Fitzgerald Joseph*
17:00 - 17:15	Turbulent annular pipe flow in subcritical transition regime: occurence of helical turbulent band *Takahiro Ishida*	Two modes for dune orientation *Sylvain Courrech Du Pont*	Coherent structures in turbulent jets: a numerical-experimental analysis *Onofrio Semeraro*
17:15 - 17:30	Dynamics and transition to turbulence of suspensions in pipe flow *Kerstin Avila*	Laboratory studies of global-scale wave interactions in rotating, baroclinic flow with topography *Peter Read*	**Vortex Dynamics** Chairman: M. Rossi The motion and flow geometry of multiple helical vortices *Oscar Velasco Fuentes*
17:30 - 17:45	Numerical investigation of turbulent puff approximation in pipe flow *Vladimir Pimanov*	Mass transfer and development of wave landform at the surface of ice sheets on Earth and Mars *Sabrina Carpy*	Helical vortex systems: linear instability analysis and nonlinear dynamics *Can Selcuk*
17:45 - 18:00	From low-dimensional chaos to complex behaviour in transitional pipe flow *Paul Ritter*	Perspectives on fluid dynamics from small-scale atmospheric phenomena on Mars *Aymeric Spiga*	Pairing instability of a helical vortex filament *Umberto Quaranta*
18:00 - 18:15	Transition in pipe flow: an experimental investigation *Jacob Cohen*	Distribution of atmospheric convection in idealized simulations *Caroline Muller*	Vortex dynamics on surfaces of revolution *Stefanella Boatto*
18:15 - 18:30	Transition to turbulence in cylindrical geometry *Mat Gipon*	Film-locked morphogenesis in Karst and ice flutings *Carlo Camporeale*	Two-dimensional instabilities of a viscous vortex dipole *Rémi Jugier*
18:30 - 18:45	Streamwise-Localized Solutions with natural 1-fold symmetry *Sebastian Altmeyer*	P30:Periodic forcing in stability analysis of river bedforms *Riccardo Vesipa* P31:Erosion patterns on dissolving surfaces *Caroline Cohen* P32:DNS of Aeolian Sand Ripples *Philippe Claudin*	P42:Curvature effect on the elliptic instability *Francisco J. Blanco-Rodríguez*
19:30 - 22:30	**GALA RECEPTION**		

THURSDAY 16 JULY

	Convection Room D (Charpak-Rateau) Chairman: A. Sergent	**Non-Newtonian Fluids** Room E (Schlumberger) Chairman: A. Morozov	**Fluid-structure Interaction** Room F (Allais) Chairman: D. Santillan
16:30 - 16:45	Influence of rotation on the stability of a flow in a horizontal fluid layer with rigid boundaries *Dmitrii Chikulaev*	Instabilities of a nematic liquid film on an incline *Lou Kondic*	Wind turbine with flexible blades *Vincent Cognet*
16:45 - 17:00	Convection in a laterally heated rotating horizontal cylinder *Isabel Mercader*	Viscoelastic fluid flow instabilities in a flow focusing device *Pierre Ballesta*	Towards a high-fidelity, computational efficient simulation of aeroelastic flows *Ruben Moreno*
17:00 - 17:15	Onset of thermal instability in a horizontal porous layer with a free surface under local thermal nonequilibrium *Michele Celli*	Instability of dilute polymer jets *Olivier Crumeyrolle*	Critical mass as a bifurcation in fluid dynamics *Efstathios Konstantinidis*
17:15 - 17:30	Unstable buoyant flow in a vertical porous layer with convective boundary conditions *Antonio Barletta*	Onset of convective and absolute instability in the mixed convection of Oldroyd-B fluids *Silvia Hirata*	Flutter instability of piezoelectric fluttering plates used as flow-energy harvesters *Olivier Doaré*
17:30 - 17:45	Stability of high Rayleigh number columnar convection in a porous medium *Duncan Hewitt*	Solid-liquid interface in a yield-stress fluid flow over a cavity *Li-Hua Luu*	Hydrodynamic coupling between two red blood cell-like vesicles *Othmane Aouane*
17:45 - 18:00	Onset of mixed convection in a porous medium due to an absolute instability induced by viscous dissipation *Leonardo Alves*	P26:Microfluidic bifurcating networks for power-law fluids *Joana Fidalgo* P27:Non *linear stability of non newtonian thin liquid film flowing down* *Lamia Bourdache Tigrine* **Industrial Applications** Chairman: J. Derby	Numerical study of the interaction between an encapsulated microbubble and a rigid wall *Maria Vlachomitrou*
18:00 - 18:15	Bifurcations in thermal convection of a viscoelastic fluid saturating a porous square box *Mohamed Najib Ouarzazi*	Morphological instabilities driven by Brunt–Väisälä waves during crystal growth *Jeffrey Derby*	Deformations of a elastic pipe submitted to gravity and to internal fluid flow *Baptiste Darbois Texier*
18:15 - 18:30	Intersections of bifurcation surfaces of different symmetry in thermal convection of visco-elastic fluid *Tatyana Lyubimova*	Experimental study of instabilities in Czochralski configuration at large Prandtl numbers *Alexander Gelfgat*	P28:The dynamics of semiflexible actin filaments in simple shear flow *Yanan Liu* P29:Fluid-body interactions within a channel and branching networks *Samire Balta*
18:30 - 18:45		Bifurcation analysis of the particle transport in a micro-pump *Mounia Makhoul*	
18:45 - 18:50		P33:Practical mapping of the draw resonance instability in film casting *Mathias Bechert*	
19:30 - 22:30	**GALA RECEPTION**		

FRIDAY 17 JULY

	Taylor-Couette Flow Room A (108) Chairman: M. Schatz	**Rotating Flows** Room B (118) Chairman: F. Moisy	**Vortex Dynamics** Room C (Le Chatelier) Chairman: M. Rossi
09:00 - 09:15	Stereo-PIV measurements in the subcritical Taylor-Couette flow *Arnaud Prigent*	Spontaneous occurence of inertial waves in a rotating liquid metal flow *Tobias Vogt*	Frequency response of a Lamb-Oseen vortex *Francisco J. Blanco-Rodríguez*
09:15 - 09:30	Direct laminar-turbulent transition in counter-rotating Taylor-Couette flow: Experiments and simulations *Christopher Crowley*	Viscous decay of inertial waves in rotating fluids *Nathanael Machicoane*	Influence of Reynolds number on theoretical models for trailing vortices *Carlos del Pino*
09:30 - 09:45	Subcritical transitions in Taylor-Couette flow with radial and axial throughflows *Denis Martinand*	A bubble regularity in closed cylinder at various aspect ratio *Igor Naumov*	A nonlinear and singular wavepacket in a rapidly rotating vortex *Philippe Caillol*
09:45 - 10:00	Transition to turbulence in Couette-Taylor flow as a directed percolation process ? *Grégoire Lemoult*	Shear-layer and centrifugal instabilities in the Vogel-Escudier flow *Miguel A. Herrada*	Lagrangian particle methods for vortex dynamics *Robert Krasny*
10:00 - 10:15	Boundary-layer turbulence in quasi-Keplerian experimental flows *Jose Lopez*	Multiple bifurcations of creeping air-water flows in conical containers *Adnan Balci*	Blow-up assessment of symmetry-plane models of 3D Euler flow *Rachel Mulungye*
10:15 - 10:30	Viscoelastic instability in Couette-Taylor System with Keplerian corotating cylinders *Yang Bai*	P38:Finite-amplitude perturbations in a slow rotating liquid layer with a free boundary *Konstantin Shvarts* P39:Instability of flow induced by free inner core in a rotating spherical shell rotating *Nikolai Kozlov*	Influence of planetary rotation on the transition to turbulence of a vertical vortex pair in a stratified fluid *Jérémy Basley*
10:30 - 11:00	**COFFEE BREAK**		

FRIDAY 17 JULY

	Convection Room D (Charpak-Rateau) Chairman: A. Gelfgat	**Faraday and oscillatory flows** Room E (Schlumberger) Chairman: W. Batson	**Fluid-structure Interaction** Room F (Allais) Chairman: O. de Roure
09:00 - 09:15	Polygonal instability of Marangoni flows *Matthieu Roché*		Oscillations of free cylinders at low Reynolds numbers in a Hele-Shaw cel *Jean-Pierre Hulin*
09:15 - 09:30	Interfacial spreading motion in two-layer solutal Rayleigh-Marangoni convection *Thomas Koellner*		Spontaneous Formation of Microscale Helices in Fluids *Alfred Crosby*
09:30 - 09:45	Convection patterns in a confined layer of volatile liquid driven by a horizontal temperature gradient *Roman Grigoriev*		Deformation and shape of flexible, microscale helices in viscous flow *Anke Lindner*
09:45 - 10:00	Interfacial heat release in two-layer systems on nonlinear traveling waves under an imposed temperature gradient *Ilya Simanovskii*	Subharmonic waves with oblique vibration *Jose M Perez-Gracia*	Flexible fibers in shear flow *Maria Ekiel-Jezewska*
10:00 - 10:15	Stability of microconvective flows in vertical channel *Victoria Bekezhanova*	Instability of miscible liquids invoked by high frequency horizontal vibrations *Yury Gaponenko*	Transport and deformation of confined fibers in viscous flows *Camille Duprat*
10:15 - 10:30	Effect of shear on plume structures and dynamics near the plate *Selvaraj Gunasegarane*	P43:Wave patterns on interfaces subjected to the horizontal vibrations *Tatyana Lyubimova* P44:Effect of forcing amplitude and frequency on the onset of the Faraday instability *Reda Guedifa*	2D dense granular flow interacting with a flexible beam *Nicolas Algarra*
10:30 - 11:00	**COFFEE BREAK**		

FRIDAY 17 JULY

	Transition to Turbulence Room A (108) Chairman: T. Schneider	**Taylor-Couette Flow** Room B (118) Chairman: D. Martinand	**Rayleigh-Taylor** Room C (Le Chatelier) Chairman: J. Jacobs
11:00 - 11:15	Influence of noise on dissipative solitons and their interaction *Helmut Brand*	Surface gravity wave bifurcation in a turbulent Taylor Couette flow *Cristobal Arratia*	
11:15 - 11:30	Experimental observation of exact coherent structures in a Kolmogorov-like flow *Michael Schatz*	Experimental evidence of a chaotic flow induced by shear-thinning effects in Taylor Couette system *Seyed Amir Bahrani*	Experiments on the Rayleigh-Taylor instability *Jeff Jacobs*
11:30 - 11:45	Optimal transition states for a model shear flow with and without noise *Marina Pausch*	Stability of a circular Couette flow under radial thermal body forces *Harunori Yoshikawa*	
11:45 - 12:00	Simple invariant solutions in homogeneous isotropic turbulence with various external forces *Lennaert van Veen*	The instabilities and turbulence of an annulus flow in a helical magnetic field *Jianjun Tao*	Numerical investigation of Richtmyer-Meshkov instability in planar and spherical geometries *Zuoli Xiao*
12:00 - 12:15	Subcritical transition to turbulence of a precessing flow in a cylindrical vesse *Johann Herault*	Linear stability analysis of a cylindrical annulus under a radial dielectrophoretic body force *Innocent Mutabazi*	Numerical simulation of increasing initial perturbations of a bubble in the bubble-shock interaction problem *Boris Korneev*
12:15 - 12:30	Transition to turbulence in forced isotropic fluid motion *Moritz Linkmann*	P34:Axial wall slits in Taylor vortices *Ahmed Daimallah* P35:Taylor vortices between circular and conical cylinders *Lalaoua Adel* P36:Stability in triangular lobed Taylor-Couette flow	Rayleigh-Taylor instability due to carbon dioxide ingestion *Patrice Meunier*
12:30 - 12:45	Relative periodic orbits form the backbone of turbulent pipe flow *Ashley Willis*	P37:Effect of Taylor Vortices on Oil Flowrate in a Compressor *Sibel Tas*	
12:45 - 13:00	Charting the state space of a turbulent flow *Predrag Cvitanovic*		
13:00 - 14:30	**LUNCH**		

FRIDAY 17 JULY

	Convection Room D (Charpak-Rateau) Chairman: A.Alonso	**Faraday and oscillatory flows** Room E (Schlumberger) Chairman: W. Batson	**Fluid-structure Interaction** Room F (Allais) Chairman: O. de Roure
11:00 - 11:15	Modulated waves in thermal convection in rotating spherical shells *Ferran Garcia*	The Faraday instability revisited *Jean Rajchenbach*	Buckling of a sedimenting elastic filament in a viscous fluid *David Saintillan*
11:15 - 11:30	Intermittent octahedral patterns in spherical Bénard convection *Philippe Beltrame*	Can weakly nonlinear theory explain Faraday wave patterns near onset? *Alastair Rucklidge*	Chaotic scattering and periodic dynamics of regular clusters of particles sedimenting in a viscous fluid *Marta Gruca*
11:30 - 11:45	Dynamo bifurcations in rotating spherical shell convection *Fred Feudel*	Control of drop motion by mechanical vibrations of the substrate *Michael Bestehorn*	Dynamics of viscous liquid within a closed elastic cylinder subject to external forces with application to soft-robotics *Amir Gat*
11:45 - 12:00	Magnetic field effects on 3D stability of natural convection flows in differentially heated cavities *Nikos Pelekasis*	Radially forced liquid drops *Ali-higo Ebo Adou*	**Non-Newtonian Fluids** Chairman: A. Lindner Development of vortex rings in oscillatory pipe flow of wormlike micellar solutions *Jordi Ortín*
12:00 - 12:15	Nonlinear thermomagnetic instabilities in ferrofluids *Sergey A. Suslov*	Faraday instability in a two-dimensional channel with obstacles at the bottom *Nicolas Perinet*	Transition to asymmetry in pipe flow of shear-thinning fluids *Rob Poole*
12:15 - 12:30	Thermal convection in a nonlinear non-Newtonian magnetic fluid *Harald Pleiner*	Spatiotemporal measurement of surfactant distribution on gravity-capillary waves *Karen Daniels*	The primary instability of viscoelastic flow through a curvilinear square--duct channel is a Hopf bifurcation *Christian Wagner*
12:30 - 12:45	Oscillatory instability of convection in ferromagnetic nanofluid and transformer oil *Aleksandra Bozhko*	Parametric wave excitation in a nonisothermal liquid layer with insoluble surfactant *Barry Friedman*	Stabilizing effect of shear thinning on the onset of elastic instabilities in serpentine microflows *Laura Casanellas*
12:45 - 13:00	P40:Thermal convection in rotating fluid spheres *Marta Net* P41:Weakly nonlinear stability analysis and heat transfer in inclined porous layer *Silvia Hirata*	Instability of an average flow in an annulus at rotational vibration *Nikolai Kozlov*	Microfluidic channels for extensional measurements *Konstantinos Zografos*
13:00 - 14:30	**LUNCH**		

FRIDAY 17 JULY

	Plenary Session AB: 108+118 Chairman: L. Tuckerman
14:30 - 14:45	CLOSING REMARKS AND BIFD 2017 AND 2019
14:45 - 15:45	Too big to grow: nonlinear saturation mechanisms in unstable open flows *François Gallaire* *Ecole Polytechnique Fédérale de Lausanne*
15:45 - 16:45	Synchronization of Eukaryotic Flagella *Raymond Goldstein* *Department of Applied Mathematics and Theoretical Physics - Cambridge*
16:45 - 19:00	REFRESHMENTS

FRIDAY 17 JULY