A JOURNEY THROUGH INTERFACES, TURBULENCE AND MOVING BODIES IN FLUIDS



A colloquium on the occasion of Jacques Magnaudet's 65th birthday



This symposium, organized by the Toulouse Institute of Fluid Mechanics(IMFT) is in honour of Jacques Magnaudet, to celebrate his scientific achievements and service to the fluid mechanics community. The colloquium features a series of invited lectures by leading fluid dynamicists who interacted closely with Jacques during his career.



Confirmed speakers:

A. Bottaro (Genoa), M. Bourgoin (Lyon), F. Candelier (Marseille), C. P. Caulfield (Cambridge), C. Clanet (Palaiseau), J. Eggers (Bristol), F. Gallaire (Lausanne), J. Gordillo (Seville), R. Govindarajan (Bangalore), E. Guazzelli (Paris), E. J. Hinch (Cambridge), C. Josserand (Palaiseau), R. Kerswell (Cambridge), E. Lauga (Cambridge), M. Le Bars (Marseille), P. Le Gal (Marseille), L. Limat (Paris), P. F. Linden (Cambridge), D. Lohse (Enschede), C. Martinez-Bazan (Granada), M. R. Maxey (Brown), S. Michelin (Palaiseau), F. Moisy (Orsay), S. G. Monismith (Stanford), J. F. Morris (City College NY), A. Naso (Lyon), S. Popinet (Paris), O. Pouliquen (Marseille), A. Prosperetti (Houston), A. Pumir (Lyon), D. Quéré (Paris), M. Rabaud (Orsay), H. A. Stone (Princeton), G. J. F. van Heijst (Eindhoven), R. Verzicco (Rome), E. Villermaux (Marseille), S. Zaleski (Paris), R. Zenit (Brown).



Reaching the city centre

Your hotel will presumably be located in downtown Toulouse. Many hotels are close to the metro station Jean-Jaurès where the two metro lines are interconnected.

If you come by train, you will arrive at the central station (Matabiau). From there, you may take the metro line A in the direction of Basso Cambo. Jean-Jaurès is the next station.

If you arrive by air, the simplest way to reach the city centre is to take a cab, as the tramway T2 is currently not in service. The all-inclusive fare is 35 €.

An alternative solution is to take the bus shuttle at the airport (9 €). It drops you in 20-25 min. at the metro station Jean-Jaurès.

Conference venue

The conference will be held at University Toulouse 3-Paul Sabatier in the amphitheater of the Centre de Biologie Intégrative (CBI).

To reach the CBI building, take the metro line B to the terminus of Ramonville. The trip takes 22 min. from Jean-Jaurès. The CBI building is 600 m from the metro station, an 8 min. walk. You may also get off the metro at the penultimate station (Université Paul Sabatier), but the walk is somewhat longer (12 min.). To reach the CBI building from the Ramonville station, follow the cyan path shown on the map below: turn right after exiting the station, follow the Malaga street, then turn left when arriving on the campus. After 100 m, you will see the CBI building on your right (rue Marianne Grunberg-Manago, photo below).



Wednesday March 27th

09:00	09:20	Welcome address Eric Climent (Head of IMFT)				
Session 1 : Chairperson Benoît Pier						
09:20	09:45	G. J. F. van Heijst	Experiments on shallow flows			
09:45	10:10	M. Rabaud	Emergence of wind-waves at the surface of a viscous liquid			
10:10	10:35	S. G. Monismith	Water waves, turbulence, and drag			
10:35	11:00	Coffee Break				
Session 2 : Chairperson Benoît Scheid						
11:00	11:25	M. R. Maxey	Mesoscopic simulations of cavitation and vapor bubble development			
11:25	11:50	J. M. Gordillo	An overview on the theory of jets ejected after the collapse of cavities and on the skating of drops over gas or vapor layers			
11:50	12:15	C. Martínez-Bazán	Dynamics and coalescence of bubbles in a bubble swarm			
12:15	12:30	H. A. Stone	Bubble dynamics in confined geometries			
12:40	14:30	Lunch				
Session 3 : Chairperson Giovanni Ghigliotti						
14:30	14:55	L. Limat	Drops sliding down a plane revisited on a deformable substrate			
14:55	15:20	S. Michelin	Self-propulsion and interactions of chemically-active droplets			
15:20	15:45	E. Lauga	Biological flows inside cells			
15:45	16:10	D. Quéré	Rocking and rolling drops			
16:10	16:40	Coffee break				
Session 4 : Chairperson Tobias Schneider						
16:40	17:05	R. Govindarajan	Low-Reynolds-number instability in dusty channel flow			
17:05	17:30	R. R. Kerswell	Contact-induced rigidity and shear thickening in dense suspensions			
17:30	17:55	A. Bottaro	Turbulence over a micro-structured wall			
18:30		Cocktail The Main Hall of the university (Administration building, close to Upsidum)				





Lunch will be served every day at 1 p.m. at the Upsidum restaurant on the campus (see the map). Walking from CBI to Upsidum takes approximately 12 min. A special bus will also be available both ways.

A cocktail will be served on Wednesday 27 at 6.30 p.m. in the Main Hall of the university (Administration building, close to Upsidum). From there, the nearest metro station to return to the city centre is Université Paul Sabatier.

Thursday March 28th

Session 5 : Chairperson Alban Sauret						
09:00	09:25	M. Le Bars	Iron snow in planetary interiors			
09:25	09:50	A. Naso	Settling and collisions of ice crystals in clouds			
09:50	10:15	C. Josserand	Wetting and solidification			
10:15	10:45	Coffee Break				
Session 6 : Chairperson Florence Raynal						
10:45	11:10	C. P. Caulfield	Shaken by physics or stirred by machine: Modelling stratified mixing (with a twist)			
11:10	11:35	P. Le Gal	On the wanderings of a ludion in a corral: in search of a quantum analogy			
11:35	12:00	P. F. Linden	The stratified inclined duct and the dynamics of stratified turbulence			
12:00	12:25	D. Lohse	Melting of ice			
12:30	14:30		Lunch			
Session 7 : Chairperson Micheline Abbas						
14:30	14:55	F. Moisy	Preferential orientation of floaters drifting in water waves			
14:55	15:20	F. Gallaire	Path instabilities of a falling permeable thin disk			
15:20	15:45	F. Candelier	Inertia effects on the dynamics of particles in non-uniform flow			
15:45	16:10	A. Pumir	Settling of anisotropic particles in air			
16:10	16:40	Coffee break				
Session 8 : Chairperson Fabien Thiesset						
16:40	17:05	A. Prosperetti	Particulate Rayleigh-Bénard convection			
17:05	17:30	R. Verzicco	Dynamics of inertial chiral particles in homogeneous isotropic turbulence			
17:30	17:55	S. Zaleski	Numerical prediction of mass transfer			
20:00		Gala Dinner (Palais Consulaire - 2 rue Alsace Lorraine, Toulouse)				





The gala dinner will take place on Thursday 28 at 8 p.m. in the salle Doumergue of the hôtel de Ciron-Fumel (Palais Consulaire), located at the corner of rue Alsace-Lorraine and rue Croix-Baragnon, in the city centre. The Palais is just a three-minute walk from the metro station Carmes, still on line B. It is a 12 min. walk from Jean-Jaurès. Walk straight ahead when you exit the station and cross the street after 150 m to reach the gate (photo below).



Friday March 29th

Session 9 : Chairperson Christophe Eloy							
09:30	09:55	C. Clanet	Track cycling physics				
09:55	10:20	M. Bourgoin	Rare-event triggered transitions in a bistable aerodynamic pendulum				
10:20	10:50	Coffee Break					
Session 10 : Chairperson Benjamin Dollet							
10:50	11:15	E. Guazzelli	Influence of inertia on the orientation of bodies of revolution in shear flow				
11:15	11:40	J. F. Morris	Criticality at the rigidity transition in dense suspensions				
11:40	12:05	E. J. Hinch	Oldroyd B, and not A?				
12:05	12:30	O. Pouliquen	Mechanics of entangled fibers				
12:30	14:30		Lunch				
Session 11 : Chairperson Arnaud Antkowiak							
14:30	14:55	S. Popinet	Marangoni forces and surfactants				
14:55	15:20	R. Zenit	Zig-zagging bubbles and JM				
15:20	15:45	J. Eggers	Surprising surface tension				
15:45	16:10	E. Villermaux	Bubble obsessions				
16:10	16:40	Coffee break and farewell					

Taxi Information

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> La Toulousaine Taxi 05- 61-20 90 00 taxi-de-toulouse.fr Reservation by call

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