

Franco-Australian Symposium on Hypersonics and High Enthalpy Flows

CentraleSupélec, Châtenay Malabry Campus

7-9 September 2016

PROGRAM AND SYMPOSIUM INFORMATION

Symposium Program

Wednesday 7 September 2016

9:00	Welcome address Gilles Bloch Président, Université Paris-Saclay	Lavallée - Grand Salon
9:10	Welcome address Hervé Biaisser Directeur, CentraleSupélec	
9:20	UQ Vice-Chancellor & President's welcome address Peter Høj Vice Chancellor, The University of Queensland	
9:30	R&T Strategy in AIRBUS Safran Launchers Coumar Oudea Head of R&T Academic Partnerships, Airbus Safran Launchers	
9:45	Hypersonic facility development Richard Morgan Centre for Hypersonics, The University of Queensland	
10:15	Nonequilibrium radiating flows Christophe Laux EM2C Laboratory, CNRS, CentraleSupélec	
10:45	Coffee break	Lavallée - Grand Salon
11:15	USQ Hypersonics David Buttsworth The University of Southern Queensland	Lavallée - Grand Salon
11:45	Hypersonic Separated Flows in Transition to Continuum Regime Sudhir Gai UNSW, Canberra	
12:15	Modeling of plasmas in supersonic flows Denis Packan ONERA	
12:45	Lunch	Olivier - Espace VIP
14:00	Boundary layer transition in hypersonic flows David Mee The University of Queensland	Dumas - Salle des thèses
14:30	Laser absorption spectroscopy and electron beam fluorescence diagnostics of reentry flows Ajmal Mohamed ONERA	
15:00	Insights of nanosecond-plasma and plasma-assisted combustion by Mid-IR QCLAS Gabi Stancu EM2C Laboratory, CNRS, CentraleSupélec	
15:30	Coffee break	Dumas - Salle des thèses
16:00	Emission spectroscopy in high enthalpy flows Tim McIntyre The University of Queensland	Dumas - Salle des thèses
16:30	Detailed kinetic mechanisms studied at CORIA Arnaud Bultel CORIA, CNRS, Rouen	
17:00	Numerical modelling of hypersonic flows Marie-Claude Druguet IUSTI, Université Aix-Marseille	

Thursday 8 September 2016

9:00	High Performance Computing at Airbus Safran Launchers Jean-Marie Couteyen Airbus Safran Launchers	
9:30	Computational tools for high-enthalpy flow simulation Peter Jacobs The University of Queensland	Olivier - Amphi 1
10:00	Development of high resolution numerical methods for high speed flows Christian Tenaud LIMSI, CNRS, Université Paris-Sud	
10:30	Coffee break	Olivier - hall
11:00	Nonequilibrium models for hypersonic flows Rowan Gollan The University of Queensland	
11:30	Modelling of MHD for reentry flows Julien Labaune ONERA	Olivier - Amphi 1
12:00	The development of European CMC TPS on the IXV vehicle Thierry Pichon Airbus Safran Launchers	
12:30	Lunch	Lavallée - Grand Salon
13:45	Atmospheric entry: an overview of R&T activities at Airbus Safran Launchers Jean-Marc Bouilly Airbus Safran Launchers	
14:15	Cubesat Platform Gilles Bailet EM2C, CNRS, CentraleSupélec / Airbus Safran Launchers	Olivier - Amphi 1
14:45	Ablation and VUV studies in CP50 Carolyn Jacobs GEEPS, CNRS, CentraleSupélec	
15:15	Optical diagnostics for ablative flows Sean McGuire EM2C, CNRS, CentraleSupélec	
15:45	Coffee break	Olivier - hall
16:15	Ablation Testing of Heated Models in the X2 Expansion Tunnel Steven Lewis The University of Queensland	
16:45	Experiments in recombining flows Augustin Tibère-Inglesse EM2C, CNRS, CentraleSupélec / Airbus Safran Launchers	Olivier - Amphi 1
17:00	Modelling recombining flows Pierre Mariotto EM2C, CNRS, CentraleSupélec / Airbus Safran Launchers	
17:15	Searching for extraterrestrial life Arnaud Buch LGPM, CentraleSupélec	
17:45	Laboratory visit	Péclet - EM2C

Friday 9 September 2016

9:00	Radiative transfer and coupling with hydrodynamics Anouar Soufiani EM2C, CNRS, CentraleSupélec	Lavallée - Grand Salon
9:30	The Fast facilities for atmospheric entries investigation Viviana Lago ICARE, CNRS, Orléans	
10:00	Chemistry models for DSMC simulations in Airbus Safran Launchers Hélène Mertz Université de Versailles / Airbus Safran Launchers	
10:15	Modelling of solar flares Marc Massot EM2C, CNRS, CentraleSupélec	
10:45	Coffee break	Lavallée - Grand Salon
11:00	Closing discussions	Lavallée - Grand Salon
12:30	Lunch	Barbecue area

Campus Access and Map

The campus address is:

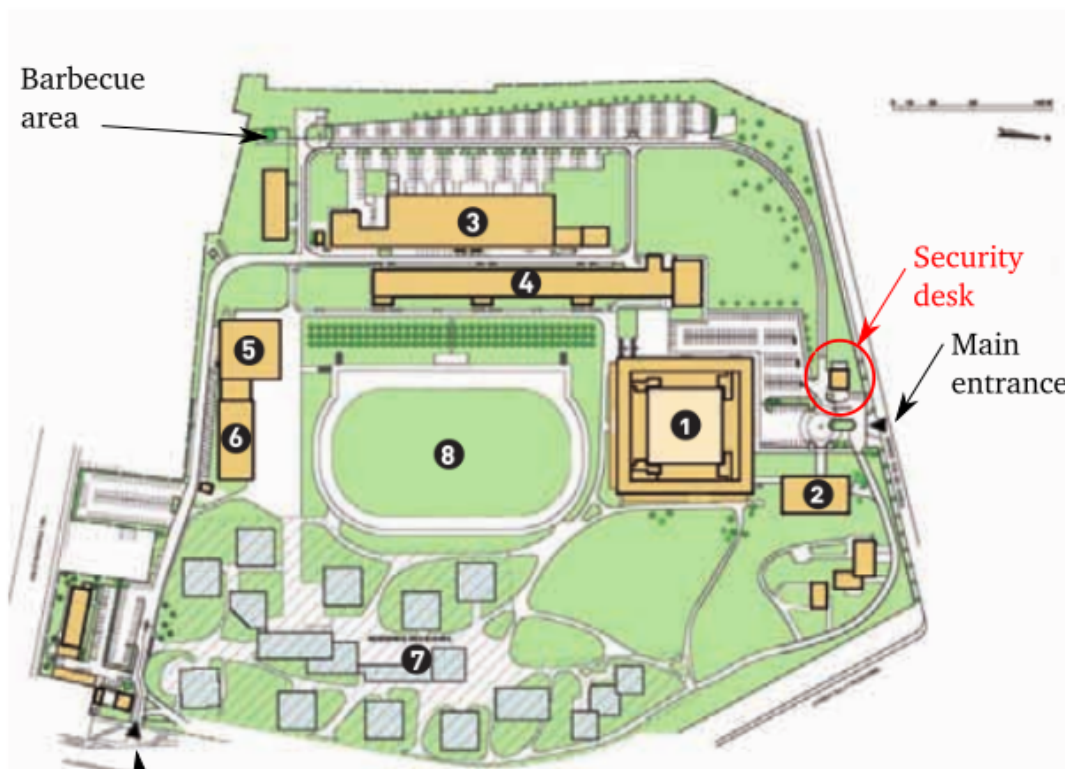
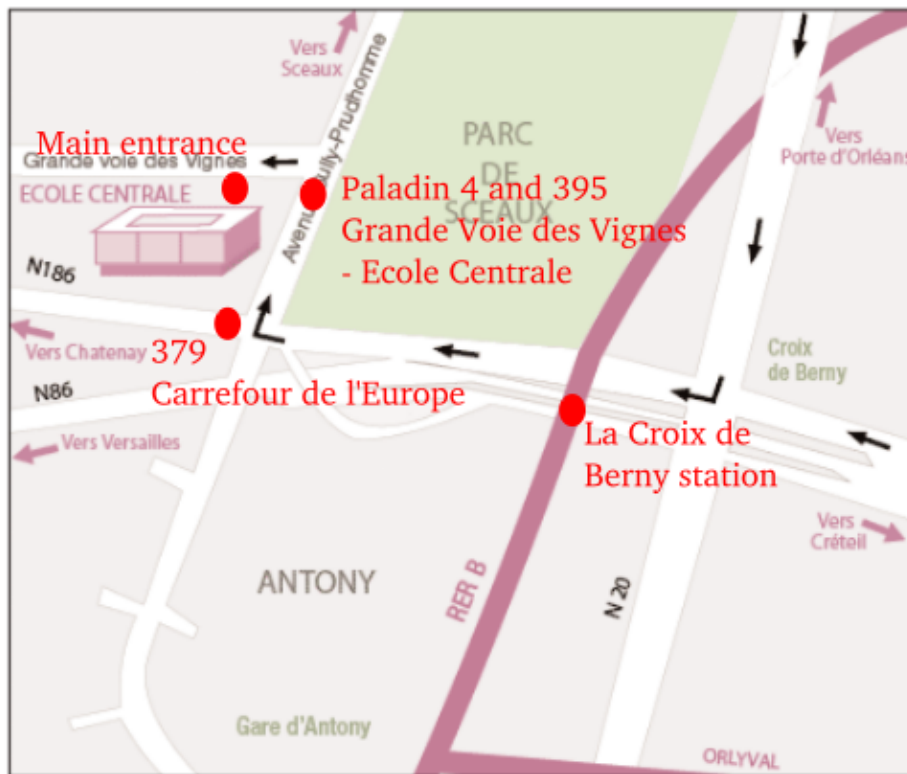
Grande Voie des Vignes
92290 Châtenay Malabry



To access the campus by train from Paris:

- RER B direction St Rémy-lès-Chevreuse
 - Exit the train at La Croix de Berny station. From here, the campus is a 20 minute walk up the hill. It is also possible to catch the bus. Catch the bus ‘Paladin 4’ and exit at ‘Grande Voie des Vignes - Ecole Centrale’ or the bus 379 and exit at ‘Carrefour de l’Europe’.
 - Exit the train at Antony station. Catch the bus 395 (direction Clamart - G. Pompidou) and stop at ‘Grande Voie des Vignes - Ecole Centrale’.
- RER B direction Robinson
 - Exit the train at Robinson station. Catch the bus 395 (direction Antony RER) and stop at ‘Grande Voie des Vignes - Ecole Centrale’

The campus buildings and entrances are indicated on the map. **Each morning, all visitors to the campus must pass by the security desk indicated on the map to sign in (ID required).**



Légende

- 1. Bâtiment Olivier (Enseignement)
- 2. Bâtiment Lavallée (Administration)
- 3. Bâtiment Pécelet (Laboratoires Industriels)
- 4. Bâtiment Dumas (Laboratoires Scientifiques)
- 5. Restaurant Universitaire
- 6. Gymnase
- 7. Résidence des Étèves
- 8. Stade

Wifi Access

The campus provides access to the Eduroam network for those who are able to connect to this network.

For those who do not have access to Eduroam, there is a second network called 'Wifi - Invités'. Please speak to one of us if you need an account created.

Meals

Lunches

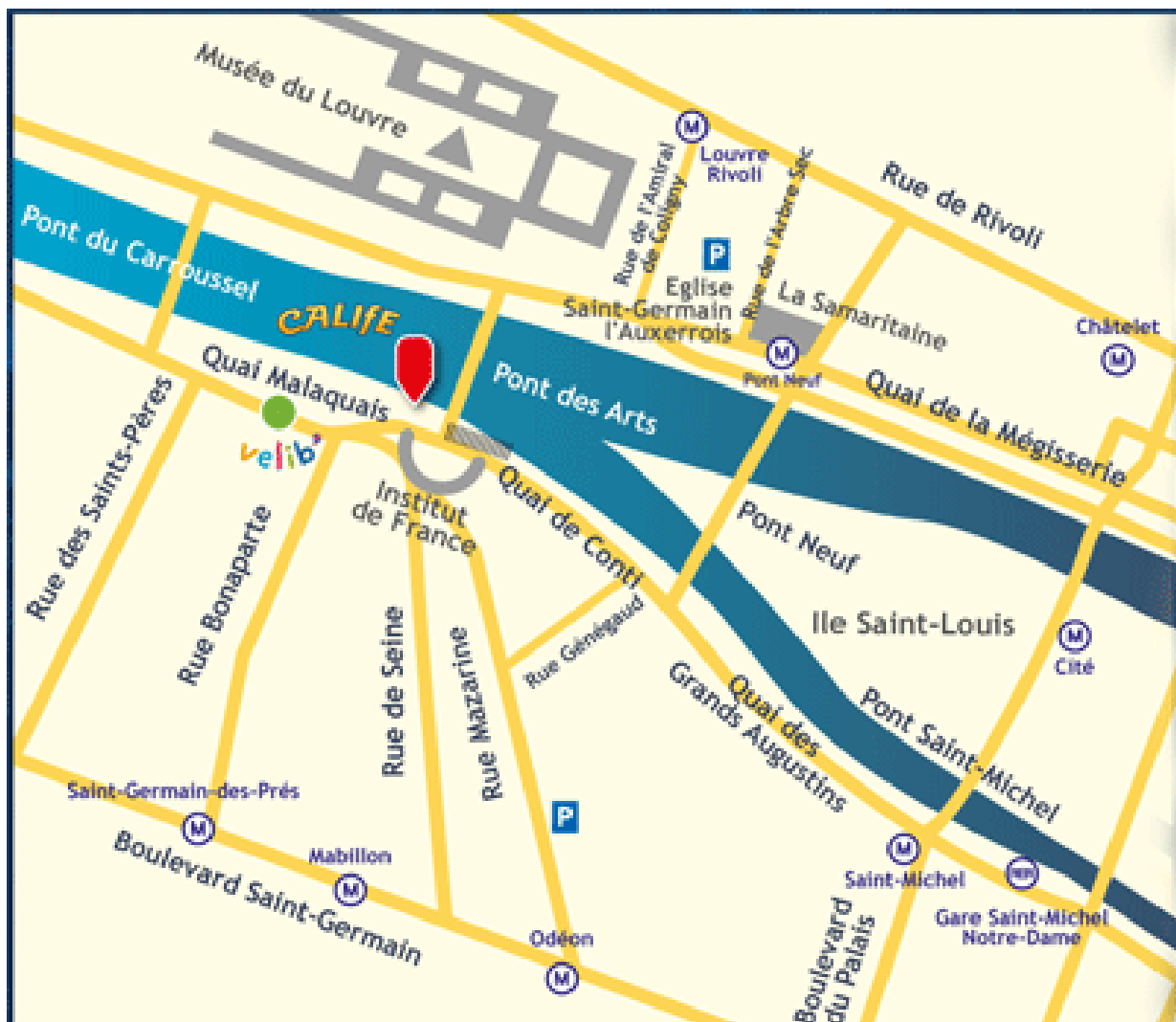
For those who have registered, lunches are provided each day.

On Wednesday and Thursday, lunch will be provided by a catering company. Those registered will be given tickets for lunch.

If the weather is fine, Friday's lunch will be a barbecue held behind the Pécelet building. Guests are welcome, but please inform us in advance for catering purposes.

Symposium Dinner

The symposium dinner will be held on Wednesday night in Paris on one of the Bateaux Mouches of the Seine, the Calife (www.calife.com).



Attendees will need to make their own way to the event via the RER B line. Students will be available at Sceaux, Antony, and La Croix de Berny RER stations to assist with tickets and to travel with you in a group. The dinner cruise will finish at approximately 23h in Paris, and a bus will be available to return attendees to the hotels in Antony and Sceaux.

To get to the Calife:

- Catch the RER B train to St Michel - Notre Dame station.
- Exit the station near Fontaine St Michel.
- Follow the Seine (staying on the south bank) to the west, keeping to the riverside footpath where possible, until you reach the Calife mooring.
- The Calife mooring is on the opposite side of the river from the Louvre museum, right near Pont des Arts.

Informal Dinner

On Thursday night, all attendees and guests are invited to an informal event at a cafe near the Antony RER station.

Please note that no reservations have been made for this event, and attendees will need to buy any food and drinks at their own expense.

Contact Details

If there are any problems/queries/concerns during the symposium and you need to reach us:

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