

# French & American Young Engineering Scientists Symposium 2009

**November 16-18, 2009**

**NOTE: New travel information has been added.**

## Introduction

Scientists and engineers from the US and France have been building collaborative linkages between young scientists over the last two years through a series of workshops and symposia sponsored by the U.S. National Science Foundation, and the Office for Science and Technology of the Embassy of France, the CNRS, the ANR, the CEA, and the SOLEIL in France. In 2007 a French-American Symposium following the model of the well known Frontiers of Science or Frontiers of Engineering meetings was held at the French Embassy on October 22-24, 2007, and hosted more than 60 scientists and engineers from the US and France, sharing three different sessions on “Brain and Information and Communication Technologies”, Environment and Sensor Networks” and “Modeling and High Performance Computing”.

This event was followed in July 2008 with second symposium, the [Young Engineering Scientists Symposium](#) (YESS 2008) which took place at the French Consulate in Washington D.C. with travel support from the NSF. The current proposal requests support for a follow-up meeting, YESS Nano 2009, to take place in Paris November 16, 17, 18, 2009 in Paris.

## Objectives

Similar to YESS 2008, the aim of this symposium is to bring together through a three-day meeting, a select group of early-career engineers and scientists from industry, academe, and government labs to discuss leading edge research and pioneering technical work in several fields related to nanotechnology.

The goal of the meetings is to introduce outstanding young scientists to each other and further solidify early stage collaborations between French and American researchers in nanoscience and engineering. Through these interactions, we hope to establish contacts between the next generation of engineering leaders while facilitating collaboration in science and engineering, transferring new techniques and approaches across fields, and broadening the international community of young scientists and engineers.

The 2009 symposium will be devoted to three topics within the area of Nanotechnology:

- Simulation and modeling of carrier transport and generation, and storage of energy at the nanoscale,
- Characterization, Instrumentation, detection and applications at the nano-bio interface and for energy related issues,

- Environmental, health, and safety issues surrounding nanotechnology applications.

## Organization

The YESSnano 2009, U.S.-France nanoscience event is co-organized under the auspices of the NSF, with participation of the DOE, on the US side, and of the CEA, CNRS, ANR and Soleil synchrotron on the French side.

Lead Organizer:

- Mark R. Wiesner, Department of Civil and Environmental Engineering, Duke University, Durham, NC, United States
- Patrick Bernier, CNRS, Institute de Chimie, Paris, France
- Jean-Philippe Bourgoïn, Nanoscience program, Commissariat Energie Atomique CEA, Saclay, Gif/Yvette, France

Planning Committee:

- Xavier Blase, CNRS Institut Néel, France
- Thierry Deutsch, CEA Nanoscience and Cryogenics Institut INAC, France
- Virginie Chamard, CNRS and Marseilles University France
- Pascale Bayle-Guillemaud, CEA Nanoscience and Cryogenics Institut INAC, France
- Jean-Yves Bottero, CEREGE, Aix en Provence, France
- Antoine Thill, CEA, Matter and Radiation Institut IRAMIS, France
- Dawn Bonnell, Materials Science and Engineering, University of Pennsylvania, Philadelphia, PA, United States
- Ashraf Alam, School of Electrical and Computer Engineering, Purdue University, West Lafayette, IN, United States
- D.F. Ogletree, Department of Energy, United States



## Workshop Logistics

## Dates

**Nov. 15th:** Arrival

**Nov. 16-18th:** Workshop

**Nov. 19th:** Tour of nanoscience activities in Grenoble for the US participants. (see **Grenoble Nanoscience Tour** below for details and October 16th deadline)

## Location

The workshop will be hosted by [Synchrotron SOLEIL](#), which is located 13 miles south-west of Paris in Saclay.

## Accommodations



[Residhome Aparthotel-Massy](#)

**Cost:** 80 euros/night (includes breakfast), to be paid by each participant.

58 rooms have been reserved for three nights, November 15th through 18th at the Residhome Aparthotel in Massy.

The aparthotel is located near the Saclay-Scientipôle science and technology valley and about 20 minutes by train from the center of Paris.

## Grenoble Nanoscience Tour

US participants wishing to visit nanoscience/nanotech labs in Grenoble (Grenoble is the prominent nanotechnology city in Europe) are welcome. Please inform us by October 16th if you wish to participate in this visit.

Those wishing to visit Grenoble should plan on leaving Paris area the evening of the 18th for a 3 hour train travel to Grenoble, spending the Thursday there and travelling back to Paris either on Thursday evening or Friday morning.

The following labs could be visited in Grenoble (please note that we will adjust the exact visit program depending on the US participants actually willing to visit Grenoble):

- [MINATEC](#) nanocharacterisation and communicating objects platforms
- The labs in Grenoble that are part of the I-CEINT GDR ([M. Fontecave](#) and F. Tardif for

CEA , [Hodeau/Hazemann/Joly's lab](#) at Néel Institute)

- Labs at the CEA [Institute for Nanoscience and Cryogenics](#) (INAC) and [Laboratory for Innovation in New Energy Technologies and Nanomaterials](#) (LITEN) and at the [CNRS Néel Institute](#).

## Contact

For practical details, please contact Dominique–Françoise Girard at ***Dominique-francoise.girard at cea dot fr***.

## Program Structure

Three topics are structuring the program, the first two with a spin towards the fields of Energy and Chemistry:

- Nanosimulation
- Nanocharacterisation/nanoBio
- Environmental impact of nanotechnologies

Six keynote talks (3 US and 3 French) are planned for each of the three topics. Those talks will be given in a plenary session.

The remaining talks for each topic will be given in parallel dedicated sessions.

### [Program Agenda](#)

## Registration

Sunday, Nov 15 at 6:00 pm there will be in the lobby of the [ResidHome](#) Hotel in Massy a first \*registration\* where you will collect a USB key containing the program, abstracts and main informations about the meeting. Then between 7:00 and 9:00 pm \*welcome reception\* in a specific room at the Hotel.

## Dinners/Evening

On the evening of the 16th and 17th dinner will be organized in downtown Paris.

- **Monday, Nov 16** after the last session we invite everyone to a *gastronomic dinner* at [Relais de Courlande](#) (6 miles from SOLEIL) starting at 8:00 pm. We will go by bus directly from SOLEIL to the restaurant site **without a stop at the hotel**. We will be back at ResidHome around 11:30 pm.
- **Tuesday, Nov 17** after the last session we invite everyone to a *sightseeing private cruise on the Seine river* through Paris on a [Bateau Mouche](#). A dinner will be served on board. The cruise will last 3 hours so we should be back at the hotel before midnight.

Notice that like Monday **we will not stop at the hotel before** going to the cruise.

## **Soleil Synchrotron Tour**

A tour of the Soleil Synchrotron will be organized during the workshop.

## **Saclay Plateau Lab Visits**

The workshop will end around noon on Wednesday the 18th. Visits to some of the nanoscience labs of the Saclay Plateau (a unique concentration of research institutes in Europe) are planned for the afternoon.

## **Travel Information**

### **Arriving in Charles de Gaulle airport**

Expect long corridors. After landing you will arrive at terminal 2 (2E usually) and need at least 1 and 1/2 hour to go through the customs and get your luggages. Then direct yourself towards the RER-TGV railway station (0.3 miles from 2E).

### **Going from CDG airport to Massy-Palaiseau**

Two solutions:

1. you can take the RER-B from the railway station CDG2 direct to Massy-Palaiseau (more than 1 hour trip, buy the ticket at the station, cost is around 10 euros).
2. or you can take from the same station CDG2 a TGV to MassyTGV station (42-47 minutes trip, much more comfortable but more expensive than the RER-B, buy the ticket at the station CDG2, cost is between 20 and 30 euros). Trains leave CDG2 at 8:58, 10:27 am, 1:16, 1:37, 3:42, 6:24, 7:11 pm. Massy-Palaiseau and MassyTGV stations are on the same location.

### **Going from the Massy station to the ResidHome Hotel**

The address is: Residhome Paris-Massy

7 rue Christophe Colomb – 91300 MASSY

Tel : +33 (0)1 69 81 62 62 / Fax : +33 (0)1 69 81 62 63

0.3 miles from the station (go on the left when you leave the station)

[Map Available on Hotel Website](#)

### **At the Hotel**

If you arrive early (rooms are usually available at 3:00 pm) it could be that your room is not ready. Negotiate with the hotel staff members. Workshop organizers will appear in the lobby

around 6:00 pm.