# 2<sup>nd</sup> International Workshop on Laser-Matter Interaction IGESA Center, Porquerolles, France 13-17 September 2010



# PROGRAM

The recent technological progress of numerical and laser facilities open a new physics at unprecedented levels of energy, power and short pulse durations. In this connection, the present workshop will cover a broad spectrum of physical areas in laser-matter interaction, all dealing with nonlinear phenomena. Topics of interest will be treated from their most fundamental issues to their most recent applications. They will concern

**Nonlinear and extreme optics**, including ultrashort pulse propagation, novel compression techniques, supercontinuum generation and high-order harmonic generation,

**Laser-plasma physics**, including nonlinear dynamics of plasma waves, parametric instabilities, relativistic plasmas at ultrahigh intensities, warm dense matter and laboratory astrophysics,

Applied mathematics and theoretical physics related to the above thematics.

This meeting will follow the first edition of the workshop « New trends for modeling laser-matter interaction » held at Luminy (France) in October 2008. A particular attention will be paid to create contacts between experimentalists, theoreticians and applied mathematicians. Young researchers (PhD, post-docs) are very much welcome and they will have the opportunity to present their results.

About forty persons have already shown their interest for this workshop. Among them we mention the following personalities:

Bedros Afeyan, Polymath Research Inc. USA ; Nikolay Rosanov, St-Petersburg University, Russia ; Jérôme Léon, Université de Montpellier, France ; A. Zigler, Racah Institute, Israel ; André Dieter Bandrauk, Sherbrooke University, Canada ; Yuri Kivshar and Wieslaw Krolikowski, Australian National University, Australia ; Joachim Herrmann, Max Born Institute, Berlin, Germany ; Laurent Gremillet and D. Benisti,

CEA-DIF, France ; Majid Taki, Université de Lille, France ; Stéphane Guizard, CEA-DSM/Saclay, France ; Eugenijus Gaizauskas, Vilnius University, Lithuania, ; Jérôme Kasparian, Université de Genève, Suisse ; Donald DuBois, Los Alamos Nat. Lab., USA ; Alejandro Aceves, Texas University, USA ; Pavel Lushnikov, University of New-Mexico, USA ; Michael JS Liu, Chineese Acad. of Sciences, China ; Vladimir Mezentsev, Aston University, UK ; Olga Kosareva, Moscow State University, Russia ; Hoanh X. Vu, San Diego, La Jolla, USA.

A more detailed program will be edited a few weeks before the workshop starts.

# FORMAT

The format of this meeting is four days, including arrival and registration day (Monday, September 17th in the afternoon). There will be invited and contributed talks split between the morning and late afternoon of each following day. A poster session will also be organized. The purpose of the workshop is to allow indepth presentations and facilitate interactions between experimentalists, theoreticians as well as applied mathematicians working in the physical areas of nonlinear optics and laser-fusion physics.

The workshop will be supported by the Atomic Energy Commission (CEA-France) and by the Laser-Plasmas Institute (ILP – France).



# REGISTRATION

The Workshop Registration Fee is  $330 \in$  for a single occupancy room and  $300 \in$  per person for a double occupancy room. It includes meals (breakfast, lunch and dinner) as well as the accommodation, ship transportation (round trip) from Hyères/« La Tour Fondue » (see Transportation section) to Porquerolles, welcome reception and conference dinner. Due to the limited number of rooms available (50 individuals and 15 double occupancy), please register as soon as possible. Also note that we cannot reserve your room until the registration fee is received.

Accompanying persons are welcome. They will pay directly on site ( $70 \in$  per person and per day +  $65 \in$  for the ship transportation to <u>Porquerolles Island</u>, for the welcome reception and the conference banquet).

The registration form must be sent to <u>brigitte.flouret@cea.fr</u> before June 30, 2010. After this date the registration fee will increase by  $100 \in$  if rooms are still available.

### **REGISTRATION FORM AND PAYMENT INFORMATIONS**

Payment of the registration fee can be made by bank transfer, checks in euro for French attendees only, or by cash on-site (+ 100  $\in$ ). Credit cards are not accepted. The CEA account information can be found in the registration form (see attached word document). Please, do not forget to mention the name of the conference (WLMI – 2010) with your payment, especially if you opt for a bank transfer.

# **CALENDAR**

December 15th, 2009: First announcement and pre-registration

February 15th, 2010: Second announcement and registration opening

April 1st, 2010: Final announcement and email open for abstracts

May 31st, 2010: Abstract deadline

June 30th, 2010: Registration and payment deadline

### **COMMITTEES**

### **Organizing Committee**

Luc Bergé	<u>luc.berge@cea.fr</u>	<b>CEA France</b>
<b>Brigitte Flouret</b>	brigitte.flouret@cea.fr	<b>CEA France</b>
Christophe Rousseaux <u>christophe.rousseaux@cea.fr</u>		<b>CEA France</b>

### **Scientific Committee**

Patrick Morapatrick.mora@cpht.polytechnique.frEcole Polytechnique FranceJean-Claude Sautjean-claude.saut@math.u-psud.frUniversité Paris XI FranceDmitry Skryabind.v.skryabin@bath.ac.ukBath University U.K.Günter Steinmeyersteinmey@mbi-berlin.deMax Born Institute GermanyVladimir Tikhonchuktikhonchuk@celia.u-bordeaux1.frCELIA – Bordeaux France

# ACCOMMODATION

The conference will be held at the <u>IGESA Center</u> where both lodging and meals will be provided. The Workshop Registration fee ( $330 \in$  for single room;  $300 \in$ /person for double room) includes meals (breakfast, lunch and dinner) and accommodation. They also cover ship transportation (round trip) from Hyères/« La Tour Fondue » (see Transportation section) to Porquerolles, welcome reception and conference dinner. Due to the limited number of rooms available, we need to know as soon as possible the number of participants.

Bedrooms are familial rooms of averaged standard. More luxury hotels close to IGESA Center can alternatively be chosen (<u>Hôtel Les Medes</u> or <u>Auberge Les Glycines</u>). Note, however, that attendees wishing to reserve their rooms outside IGESA will have to book them on their own. In that case, registration fees will be decreased to some extent.

### **TRANSPORTATION**

We are organizing transfers from Toulon airport or railway station to Porquerolles on Monday 13/09 and Friday 17/09 (included in registration fee). The meeting place will be « La Tour Fondue » at Hyères (see below). Please indicate in the registration form if you plan to use the proposed schedules. The following plane/train schedules and rates were applied in 2009. They are given for information only and may be revised in 2010.

### Monday, September 13rd, 2010

We advise you to arrive around 16:30 pm at the Toulon railway station or before 17:00 pm at the Toulon-Hyères airport

Trains from Paris/CDG2: Toulon TGV5164  $11:43 \rightarrow 16:08$ Trains from Gare de Lyon: Toulon TGV6075  $11:46 \rightarrow 15:33$ 

Flights from Paris-Orly:	Toulon AF7500	08:55 → 10:15
	AF7506	13:30 → 14:50

### Friday, September 17th, 2010

The boat will leave Porquerolles at 13:00 and arrive at the railway station or at the airport at around 15:00.

Trains to Paris/Gare de Lyor	16:30 <b>→</b> 20:45	
Paris/CDG2:	TGV5184	17:18 → 21:59
Flight to Paris-Orly:	AF7507	15:35 → 17:00

### How to go to Porquerolles Island?

From Toulon-Hyères airport or Hyères train station, take either a bus or a taxi (see information below) to the harbour at « La Tour Fondue » on Giens Peninsula. From the harbour, take the ferry or a taxi boat to Porquerolles Island.

The IGESA Center which hosts the workshop is 200 meters away from Porquerolles harbour.

### By plane

<u>Toulon-Hyères airport</u> is located near Hyères which is the closest city to Porquerolles Island. From the airport, rent a taxi (about  $20 \in$ ) to « La Tour Fondue » where the ferry boat to Porquerolles will wait for you and leave. Please, do not arrive at either Nice or Marseille airports to avoid a long transportation to Hyères.

### By train

The most convenient <u>railway station</u> is Toulon. However, Toulon is 18 km away from Hyères where you need to take the ferry for the island. The train connections between Toulon and Hyères are not so good and the most convenient way to reach Hyères is by bus. The <u>SODETRAV bus company</u> (shuttles # 29 or 39) can be used from Toulon Railway Station to either Hyères Railway Station or Hyères Bus Station. Then from Hyères Bus Station, take either the bus 67 or a taxi (about  $25 \in$ ) to « La Tour Fondue ».

### Boat

IMPORTANT : We plan to collect all participants arriving at « La Tour Fondue » between 16:00 and 18:30 on Monday 13/09. Be aware of not missing the last boat at 18:30.

For participants missing the above appointment (16:00-18:30 at « La Tour Fondue » on Monday 13/09), there are <u>ferry boats</u> from « La Tour Fondue » to Porquerolles Island every 30 minutes from 9:00 to 18:30. Travel time: 20 minutes.

#### Price

A round trip is  $16.50 \in$  for an adult,  $14.50 \in$  for children between 4 and 10 years and free for children under 4. Credit cards are accepted. To get a seat and buy your ticket, be there 30 minutes before departure time.

### Taxi boat

For late arrivals, there are also Taxi Boats. Please contact their company two weeks in advance to book a boat (single trip:  $81 \in$  for 6 persons,  $13.50 \in$  for one person with at least 10 passengers). Taxi Boat Pelican 24h/24h (Tel: +33 6 09 52 31 19, email: pelicantaxi@wanadoo.fr).