

Report on HiPER 4nd Forum and 2nd Fellows Meetings, held in Bordeaux on February 2nd-3rd 2012

The 4nd Participants' Hiper Forum and the 2nd "HiPER Fellow took a place at the Hôtel de Région, Bordeaux, on February 2 Thursday, and 3 Friday, 2012. They were preceded the day before, 1st February, by a visit to the Laser Megajoule (LMJ) and PETAL. The visit was organized in the late afternoon for all participating scientists who were already in Bordeaux and followed by a common dinner.

On February 2, we held the HiPER Forum. Scientists of all fields covered by 8 technical Work Packages of HiPER have presented contributions to an attendance of about 100 participants. The President of the Aquitaine region has participated directly to the meeting bringing the greetings of the Region.

Many topics have been discussed during the meeting. Different problems coming from different prepackages have been share improving the links between different packages. The four sections of the meeting have been chaired by Ch. Edwards, F. Amiranoff, J.C.Chanteloup and M. Tatarakis. Others talks have been presented by A.Randewich, P.Norreys, S.Atzeni, C.Danson, A.Casner, J.Duysens, and finally by J.Collier.

Agenda of the 4nd HiPER Forum Meeting is given here.

8.30– 9.00	Convene & coffee (Bar - 2nd floor)	
9.00- 9.20	Welcome (Amphithéâtre Chaban Delmas - 2nd floor)	
9.00- 9.10	President de la Region Aquitaine	A.Rousse
9.10- 9.20	Welcome & Introduction	D.Batani
9.20-12.40	UPDATE ON TECHNICAL PROGRESS – chair Ch.Edwards	
9.20- 9.40	WP8 - Safety, Environment & Fusion Technology	M Perlado
9.40- 10.00	WP9 - Fusion Modelling	S Atzeni
10.00-10.20	WP10 - Fusion Experimental Programme	D Batani
10.20-10.40	WP11 - Fusion targets and delivery	M Tolley
10.40-11.00	Coffee break – (Bar - 2nd floor)	
11.00-12.40	UPDATE ON TECHNICAL PROGRESS – chair F.Amiranoff	
11.00-11.20	WP12 - Fundamental Science Programme	M Tatarakis
11.20-11.40	WP13 - Laser technology	J.-C. Chanteloup
11.40-12.00	WP14 – Laser Facility design	B LeGarrec
12.00-12.20	WP15 - Target chamber / target area	B Rus
12.20-12.40	Summary of National Funding Initiatives	C.Edwards
12.40-14.00	Lunch - (Bar 2nd floor)	
14.00-16.40	PRESENT ACTIVITIES AND OVERVIEWS - Chair: J.C.Chanteloup	
14.00-14.20	Update on indirect drive work at AWE and NIF progress	A Randewich
14.20-14.40	Orion commissioning and plans for academic access	P.Norreys
14.40-15.00	Update on Shcok Ignition	S.Atzeni
15.00-15.20	Orion commissioning and plans for academic access	C.Danson
15.20-15.40	Update on the develop' of PETAL/LMJ & academic access	A.Casner
15.40-16.00	Coffee break (Bar - 2nd floor)	
16.00-16.25	FUTURE STRATEGIES Chair: M.Tatarakis	
16.00-16.20	A credible pathway to shock ignition on LMJ as next step of HiPER fusion program - M.Decroisette	
16.20-16.40	Towards a Global Integrated Virtual Reactor	J.Duysens
16.40-17.00	HiPER strategy	J.Collier
17.00-18.30	General discussion	

The 2nd HiPER Fellows Meeting in Bordeaux followed the Forum meeting the day after. It offered an opportunity to appreciate the significant efforts spent by the young fellows of the HiPER community to progress in the broad range of crucial areas, from laser to fusion technology, from modeling of advanced ignition schemes to complex experiments accessible world-wide. This event followed the first successful fellow meeting held in Prague on March, 4th 2010.



**HiPER Participant Forum and Fellow meeting participant
in the *Hôtel de la Région Aquitaine* Amphitheater**

33 papers were submitted originating from eight countries. All HiPER relevant scientific fields (i.e. work packages) were covered. Thirteen submitted scientific contributions were granted an oral presentation while eighteen were granted a poster presentation. Two senior speakers were invited as well to give opening and closing presentations. Agenda of the 2nd HiPER Fellows Meeting is given here.

08.30-08.55	Convène & coffee (Bar - 2nd floor)	
08.50-08.55	Welcome - Jean Christophe Chanteloup (Amphithéâtre Chaban Delmas - 2nd floor)	
08.55-10.30	ORAL SESSION 1 - Chair L.Gizzi	
08.55-09.15	A.Casner	LLE: DD ICF research and Ignition plans
09.15-09.30	A.Marocchino	Progress In Direct Drive Target-Robustness Studies
09.30-09.45	A.Willner	Dual-gas HHG as efficient attosecond source
09.45-10.00	Ch.Spindloe	An Update of Target Fabrication Techniques for the Mass Production of IFE Targets
10.00-10.15	A.Lucianetti	HiLASE cryogenically-cooled multi-slab amplifiers for high-repetition-rate Laser IFE
10.15-10.30	N.Moral	Assessment Of Content of Hydrogen Isotopes and Helium in a W Armor for HiPER
10.30-11.00	Coffee break - (Bar - 2nd floor)	
11.00-12.15	ORAL SESSION 2 - Chair J.-C.Chanteloup	
11.00-11.15	L.Antonelli	Experimental Results in SI Experiments at Pals: K- α and Shock Wave Generation
11.15-11.30	J.Körner	Concept on high-energy short-pulse cryogenic-cooled burst mode amplifier system
11.30-11.45	R.Juárez	Studies of a Self Cooled Lead Lithium blanket and the implications in the design of
11.45-12.00	B.Vauzour	Fast Electron Energy-Losses In Laser-Driven Plasmas
12.00-12.15	A.Debayle	Relativistic electron beam divergence reduction by target design
12.15-13.30	Lunch - (Bar 2nd floor)	
13.30-15.30	POSTER SESSION	
15.30-16.40	ORAL SESSION 3 - Chair B.Le Garrec	
15.30-15.45	P.Köster	Laser plasma interaction studies in a Shock Ignition relevant intensity regime
15.45-16.00	T.Novo	Cryogenically cooled amplifier for 10 Hz kilojoules beamlines
16.00-16.15	N.Gordillo	Silica final lenses subject to HiPER direct irradiation
16.15-16.40	M.Perlado	Pathway for Reactor Design and Technology
16.40-17.00	Conclusions & HiPER Fellow Prizes Ceremony	

Agenda of the 2nd HiPER Fellow meeting

The day ended up with a HiPER Fellow prizes ceremony presided by Mr Alain Rousset, président de la Région Aquitaine who honored two HiPER young fellows with prizes worth 500 €each, namely :

- **Rafael Juarez**, Spain, for his oral presentation on “Studies of a Self Cooled Lead Lithium blanket and the implications in the design of HiPER reactor”.
- **Lidia Borisenko**, Russia, for her poster on “Data processing for low-density high-Z nanoparticle layer characterization using x-ray tomograph”.



HiPER Fellow meeting prize ceremony at the *Hôtel de la Région Aquitaine* Amphitheater. Président A.Rousset awarding prizes to the two laureates (top). Laureates with the organizing committee (bottom)

The scientific production of the 2nd HiPER Fellows Meeting was compiled into the annexed booklet of abstract and all poster and presentations are available at the following web link : <http://webdav.luli.polytechnique.fr/public/HiPER-Bordeaux2012/2nd%20HiPER%20Fellows%20Meeting/>

LIST OF PARTECIPANTS

Surname	name	surname	name
Rousser	Alain	Fedeli	Luca
Maybury		Freeman	Richard
Batani	Dimitri	Marocchino	Alberto
Perlado	Manolo	Orehov	Andrey
Atzeni	Stefano	Papadogiannis	Nektarios
Tolley	Martin	Parris	John
Tatarakis	Michael	Richetta	Maria
Le Garrec	Bruno	Kovacs	Francis
Chanteloup	Jean-christophe	Massard	Thierry
Rus	Bedrich	Novaro	Marc
Edwards	Christopher	Turck-Chièze	Sylvaine
Randewich	Andrew	Toussaint	Jean-Jacques
Norreys	Peter	Villain-Guillot	Simon
Danson	Colin	Moustaizis	Stavros
Casner	Alexis	Zeitoun	Philippe
Decroisette	Michel	Mocek	Thomas
Duysens		Santos	Joao Jorge
Collier	John	Amiranoff	François
Lucianetti	Antonio	Malka	Gerard
Sawicka	Magdalena	Ducet	Jean-Eric
Körner	Jörg	Koenig	Michel
Fraile Garcia	Alberto	Fedosejevs	Robert
Cereceda	David	Evans	Roger
Culfa	Ozgur	Badziak	Jan
Moral Fernandez	Nuria	Pisarczyk	Tadeusz
Juárez	Rafael	Miklaszewski	Ryszard
Cotelo	Manuel	Chabassie	Geneviève
Marocchino	Alberto	Neely	David
Antonelli	Luca	Tikhonchuk	Vladimir
Garcia de la Varga	Alberto	Honrubia	Javier
Tobias	Javier Fernandez	Fleurot	Noël
Novo	Thierry	Chauveau	Emilie
Houzvicka	Jindrich	Sandner	Wolfgang
Stasic	Jelena	Zigler	Arie
Gordillo Garcia	Nuria	Martikova	Michaela
Willner	Arik	Didier	Bernard
Martinkova	Michaela	Trtica	Milan
Volpe	Luca	Nelet	Ambre
Perego	Claudio	Jacquemot	Sylvie
Vauzour	Benjamin	Mendoça	Tito
Baffigi	Federica	d'Humières	Emmanuel
Cristoforetti	Gabriele	Le Bel	Eduard
Spindloe	Christopher	Ribeyre	Xavier
Borisenko	Lidia	Taloud	Jean-christophe
Debayle	Arnaud	Lucchini	Christophe
Serra	Sam	Richetta	Maria
Arzakantsyan	Mikayel	Rousseaux	
Guerrero	Carlo	Breil	Jérôme
Borisenko	Natalya	Tudisco	Salvatore
Cristoforetti	Gabriele	Velechovsky	Jan
Cotelo	Manuel	Harribey	Thibault
Davis	Stanley	Bourgeade	Antoine
De Angelis	Riccardo	Anzalone	Antonello
Del Sorbo	Dario	Feugeas	Jean-Luc
Vallet	Alexandra	Nuter	Rachel
Vaisseau	Xavier	Chièze	Jean-Pierre
Touati	Mickaël	Nicolaï	Philippe

Report on the expenses incurred

The expenses for the meeting are listed in the table below.

The direct reimbursement to participating scientists concerns travel and in some cases hotels. No direct support was given to French scientists since France does not support SILMI (apart from buffet lunch). The expenses for lunch and dinner concern the buffet lunch for all participants and dinner for some participants who requested it (again with the exclusion of French scientists). The presents for participants consisted in a box of chocolate typical of the Region Aquitaine.

reimbursed people	amount			
Thierry Novo	318	€	GARCIA alberto	300 €
Chris Spindloe	360	€	GORDILLO nuria	230 €
Sam Serra	360	€	COTELO Manuel	300 €
Michel Koenig	250	€	Luca Volpe	500 €
Michaela Martinkova	300	€	Claudio Perego	500 €
Milan kalal	250	€	Luca Antonelli	600 €
Maria Richetta	800	€	Prize to Rafael Juarez	500 €
Ryszard Miklaszewski	300	€	Prize to Lidia Borisenko	500 €
Arie Zigler	480	€	Organization expenses	amount
Arnau Debayle	250	€	Bus to visit LMJ	382 €
Trtica Milan	350	€	Presents for participants	590 €
Jelena Stasic	350	€	Lunch 02/02/12	3600 €
Ozgur Culfa	530	€	Lunch 03/02/12	3600 €
Körner Jörg	350	€	Dinner01/02/12	580 €
Alberto Marocchino	800	€	Dinner03/02/12	580 €
CERECEDA david	300	€	TOTAL PEOPLE	10668 €
MORAL nuria	300	€	TOTAL ORGANIZATION	9332 €
FRAILE alberto	330	€	TOTAL	20000 €
JUAREZ rafael	260	€		

The meeting was cosponsored by the Aquitaine Region and the Institute Lasers et Plasmas (France). The Region contributed for about 5 k€ corresponding to the free use of the facilities at the Hotel de la Region in Bordeaux, to the printing of materials and photocopies for all participants, to providing some personnel to assist the meeting
ILP provided the amount of 10 k€ to cover travel and meals for French scientists.