

HiPER Participants' Forum = Scientific Report

The Fourth HiPER Participants' Forum has taken place in Prague on Friday 19th April 2013 following the "Laser Energy Workshop" organized within the SPIE conference (SPIE's 2013 Optics and Optoelectronics International Symposium, 15 - 18 April 2013, Clarion Congress Hotel, Prague, Czech Republic. This even closes the «Preparatory Phase» of the HiPER Project.

The HiPER Forum has seen the participation of about 70 researches, post docs and PhD students. The leaders of the 8 technical Work Packages of HiPER summarized the work done within the duration of the Preparatory Phase of HiPER. This has served as technical introduction and background information for the following discussion on the future of HiPER.

Posters have been presented during all the day by young researchers of the HiPER community, PhD student and Post-Doc.

The presentations and the posters have clearly presented the progress done in recent years, and they have also contributed to identify the bottlenecks to be overcome concerning both plasma physics and laser physics.

In particular, the Forum has re-affirmed the choice of the direct-drive approach to Inertial Confinement Fusion. It has also confirmed the choice of "shock ignition" as preferential pathway to demonstrate ignition at the LaserMegajoule (LMJ) Facility in France over the next decade.

The discussion has highlighted the necessary steps to reliably approach the demonstration of ignition on LMJ. These include progresses in diagnostics development, target fabrication, predictivity of numerical codes, capability of performing preliminary experiment on Intermediate Laser Facilities in Europe and elsewhere (United States, Japan).

The discussion has also highlighted the progress done in the study of laser technology (toward the realization of high-energy high-repetition laser systems) and the needed steps for approaching the study of future fusion reactions, including studies on new materials.

The requested funding to SILMI was 9000 €. The money actually spent was 8400 €.

Appendix 1

Agenda of the Event



Participants' Forum, Friday 19th April 2013
Clarion Conference Centre, Prague, Room: Tycho

08.45 Convene

09.00 Welcome and Introduction

Chris Edwards

09.10 Technical Session "Highlights and 5 Year Forward Plan"

Chair Chris Edwards

09.10	Overview of Advanced Ignition Studies	Stefano Atzeni
09.30	Experimental progress and Roadmap to Ignition	Dimitri Batani
09.50	Virtual Reactor modeling	Jacques Duysens
10.10	Materials & Reactor Concepts	Manolo Perlado

10.30 Coffee

Chair François Amiranoff

10.50	Target Mass Manufacture	Martin Tolley
11.10	Laser Technology Roadmap	J-C Chanteloup
11.30	Target Injection & Tracking	Bedrich Rus
11.50	Fundamental Science & Training	Michael Tatarakis
12.10	LMJ Beamtime Opportunities	Thierry Massard

12.30 Update on funding

Chair Michael Tatarakis

12.30	STFC funding of "Interim Phase"	John Collier
12.45	Horizon 2020 opportunities	To be announced
13.10	Other funding news	All

13:30 Lunch

14:30 Discussion: HiPER Strategy and 5 Year Look-ahead

Chair John Collier / All

15:45 Closing remarks

John Collier

16:00 Close

Posters will be exposed all-day and presented during coffee breaks and lunch breaks

The organizers acknowledge the partial economic support of the SILMI Program of ESF



Appendix 2

Researchers supported thanks to the contribution of the program SILMI of ESF

Tzveta Apostolova	Bulgaria	900
Alessio Morace	Italy	600
Dimitri Batani	France	500
Hui Chen	USA	500
Milan Kalal *	Czech	900
Michel Koenig	France	500
Michaela Martinkova *	Czech	900
Piotr Raczka	Poland	600
Rashida Jafer	Pakistan	900
Abutrab Aliverdiev	Russia	900
Luca Volpe	Italy	600
Claudio Perego	Italy	600
Total		8400

***Although being Czech, these researchers were on leave in South Korea**