

# First LMJ-PETAL User Meeting

Le Barp (near Bordeaux), France

October 4-5 2018



LMJ-PETAL is an exceptional tool for academic research, offering the opportunity to study matter under extreme conditions. During this first User Meeting, LMJ-PETAL's capabilities will be described to current and potential users, and discussions on future experiments and capabilities will be addressed.

The Association Lasers & Plasmas (ALP) organizes academic access to LMJ-PETAL. The selection of proposals of experiments is done by the PETAL international Scientific Advisory Committee, an independent panel composed by world recognized scientists. The first academic experiments have been performed in December 2017; five others are scheduled in the next three years.

The 176-beam Laser MegaJoule (LMJ) is developed by CEA-DAM to study High Energy Density Physics and Basic Science. The LMJ has been operational since October 2014; four years later, with 40 beams and 10 diagnostics, LMJ is the second most energetic laser facility in the world, and it provides remarkable capacities to study matter under high temperature and high pressure.

PETAL is a short-pulse, high-energy multi-Petawatt beam coupled to LMJ. PETAL has been operational since October 2017. It offers a combination of a very high intensity beam, synchronized with the very high energy beams of LMJ.



\*PETAL has been realized by the CEA-DAM with the financial support and under the auspices of the New Aquitaine Region (project owner), the French Government and the European Union.

## Organizing committee

Jean-Luc Miquel, Dimitri Batani,  
Oriane Beauduc, Nathalie Blanchot,  
Laurence Bonnet, Alexis Casner,  
Jean Lajzerowicz, Ambre Nelet,  
Emmanuelle Prené, Patrick Renaudin,  
Claude Rouyer, Laure Vacher

## Preliminary Program

### October 4

Welcome  
LMJ status  
PETAL performance  
Overview of LMJ-PETAL diagnostics  
First PETAL experiment  
PETAL Diagnostics commissioning

### Poster session & Lunch (buffet)

### 3 Round tables

- Targets fabrication
- Codes and design validation
- New diagnostics

Tutorial

Cocktail

### October 5

PETAL experiments in 2019

Round tables debriefing

Academic Session (selected talks)

Discussion on Users organization  
(User-meeting, User-group...)

Closure

### Lunch (buffet)

LMJ-PETAL tour

## Keynote Speakers

- F. Albert, LLNL, USA
- D. Batani, CELIA, France
- S. Baton, LULI, France
- M. Campbell, LLE, USA
- S. Fujioka, ILE, Japan
- G. Gregori, U. of Oxford, UK
- S. Rose, Imperial College, UK
- W. Theobald, LLE, USA
- V. Tikhonchuk, CELIA, France
- N. Blanchot, CEA, France
- P. Delmas, CEA, France
- R. Wrobel, CEA, France
- ...

## Deadlines

Inscription for Tour: July 27<sup>th</sup> 2018

Abstract submission: July 27<sup>th</sup> 2018

Inscription for meeting: August 24<sup>th</sup> 2018

## Student support

CEA-DAM will provide support for participation for selected PhD students ( $\approx 20$ ) planning to present a poster and participate in meeting discussions.

## LMJ-PETAL Tour

Friday, October 5, 2:00 pm - 5:00 pm

Access to LMJ-PETAL is subject to specific regulation and prior agreement. It may be denied.

