



Program LMJ-PETAL User Meeting

Thursday 8 June 2023

Schedule	Duration	Title	Speaker	Institution
9:00 AM	0:30	<i>Welcome at the Hotel Hilton Inn Garden</i>		
9:30 AM	0:15	Opening addresses	JL. Miquel E. Lefebvre	ALP CEA/DAM/DAN
		Session-1 : LMJ-PETAL performance	Chairman :	
9:45 AM	0:25	LMJ Facility: Status and Performance	V. Denis	CEA/DAM, France
10:10 AM	0:25	PETAL laser performance	N. Blanchot	CEA/DAM, France
10:35 AM	0:25	The PETAL UPgrade project	E. Hugonnot	CEA/DAM, France
11:00 AM	0:25	Recent platforms with LMJ	S. Brygoo	CEA/DAM, France
11:25 AM	0:25	ICF experiments on the LMJ facility	S. Laffite	CEA/DAM, France
11:50 AM	0:25	Enhanced ion acceleration using the high-energy petawatt PETAL laser	D. Raffestin	CELIA, France
12:15 PM	1:45	<i>Lunch/ Posters session</i>		
		Session-2: Past user experiments	Chairman :	
2:00 PM	0:25	Experimental mitigation of fast magnetic reconnection in multiple interacting laser-produced plasmas	R. Smets	Sorbonne Université, France
2:25 PM	0:25	Hydrodynamics of laser-produced high-energy-density plasma under magnetic field to open a new frontier in HEDP physics	Ph. Nicolai	CELIA, France
2:50 PM	0:25	Laser plasma acceleration of high charge >200 MeV electrons at LMJ-PETAL	W. Cayzac, X. Davoine	CEA/DAM, France
3:15 PM	0:25	Assessment of neutron production using the high-energy PETAL laser	R. Lelièvre	LULI, France
3:40 PM	0:25	Analysis of the recent LLNL-LMJ COMPAS campaign on foam-filled hohlraums and future directions	J. Milovich	LLNL, USA
4:05 PM	0:20	<i>Break</i>		
		Session-3: Next user experiments	Chairman :	
4:25 PM	0:25	Driving extreme magnetizations in compressed HED plasmas	J. Santos	CELIA, France
4:50 PM	0:25	Determination of stimulated Raman scattering mechanisms in large, directly-driven, plasmas on the LMJ	J. Myatt	Alberta University, Canada
5:15 PM	0:25	Fe and FeO at Super-Earth interior conditions for planetary models	M. Harmand	Sorbonne Université, France
5:40 PM	0:25	Experimental and numerical study of heavy targets on LMJ	E. Lescoute	CEA/DAM, France
6:05 PM	0:40	Round table on targets		
6:45 PM	0:30	<i>Aperitif</i>		
7:15 PM	2:00	<i>Dinner</i>		
9:15 PM		Adjournment		

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Friday 9 June 2023

Schedule	Duration	Title	Speaker	Institution
8:00 AM	0:15	Welcome Hilton Hotel		
8:15 AM	0:45	Transportation to LMJ-PETAL		
9:00 AM	2:30	LMJ-PETAL tour		
11:30 AM	0:45	Transportation to Hilton Hotel		
12:15 PM	1:30	Lunch		
		Session - 4 : Diagnostics and Targets	Chairman:	
1:45 PM	0:25	Status of implementing diagnostics at the Laser MegaJoule (LMJ) - PETawatt Aquitaine Laser (PETAL) facility	G. Boutoux	CEA/DAM, France
2:10 PM	0:25	Nuclear Diagnostics at NIF: Reaction History and Neutron Imaging	K. Meaney	LANL, USA
2:35 PM	0:25	Review of General Atomics Target Fabrication: Facilities, Capabilities, and Notable Recent Developments	M. Manuel	General Atomics, USA
3:00 PM	0:20	Break		
		Session - 5 : Perspectives	Chairman:	
3:20 PM	0:25	Theory and observation of hydrodynamic shocks in a plasma flowing across randomized ICF scale laser beams	S. Huller	CPhT, CNRS, France
3:45 PM	0:25	Developing X-Ray Phase-Contrast Imaging for High-Energy Density Hydrodynamics Applications	D. Batani	CELIA, France
4:10 PM	0:25	Hiper+ Roadmap	S. Le Pape	LULI, France
4:35 PM	0:25	The roadmap of Focused Energy to inertial fusion energy	X. Vaisseau	Focused Energy
		Session - 6 : Conclusions		
5:00 PM	0:15	Conclusions : Organization, next call for proposals, next User-meeting	Organizing committee	
5:15 PM	Adjournment			

POSTERS

Poster title	Speaker	Institution
Stimulated Brillouin scattering induced by a temporal modulated nanosecond UV laser beam	R. Nuter	CEA, France
Experimental investigation of SiO ₂ foam-filled hohlraums for inertial fusion	S. Iaquina	University of Oxford, UK
Development of a coupled frequency-shifted Photonic Doppler Velocimetry (PDV) and triature Velocity Interferometer System for Any Reflector (VISAR) diagnostic and application to an experimental platform dedicated to evaluate x-ray-generated stress in materials at the Laser MegaJoule (LMJ) facility	G. Boutoux	CEA, France
D ₂ neutrons produced by LMJ and fast neutrons produced by PETAL: methodology and first results using scintillators and nuclear activation diagnostics	G. Boutoux	CEA, France
Preliminary experimental study of boron nitride equation of state under extreme conditions by shock waves	D. Singapulli	CELIA, France
Optimization of Polar Direct Drive Illumination for Mega-Joule Laser Facilities	D. Barlow	CELIA, France
Assesment of optical smoothing configurations for LMJ facility	D. Penninckx	CEA, France
Absolute calibration of a streaked optical pyrometer at nanosecond time scale	M. Noury-Martin	CEA, France
Laser-driven proton-boron reaction for alpha particles and radioisotopes production	M. Huault	Universidad de Salamanca, Spain
HRXS- High Resolution X-ray Spectrometer of LMJ	C. Reverdin	CEA, France