EMMI-JINA Workshop Oct 13th & 14th - 17th, 2012

Nuclear Physics Processes in Dynamic High Energy Density Plasmas

D A R M S T A D T GSI/EMMI Saturday, October 13th, 2012

Time	Topic	Speaker	Affiliat.
8:45 AM	Welcome	Karlheinz Langanke	GSI
9:00 AM	Radiation-hydrodynamics simulations of matter at high energy density driven by laser and ion beams	Anna Tauschwitz	GSI
9:30 AM	Neutron Energy flux spec at NIF	Jac Caggiano *	LLNL
10:00AM	Gamma Ray spectroscopy at the NIF	Wolfgang Stoeffl*	LLNL
10:30 AM	Coffee Break		
11:00 AM	Nuc. Astro-Phys. Theory	Ewald Mueller *	TU Darmstadt
12.00 AM	Radiochemical Measurements of Neutron Capture Products at the National Ignition Facility	Dawn Shaughnessy*	LLNL
12:30 PM	Lunch Break		
13:30 PM	HEDP physics	Paul Drake*	UM/LLNL
14.15 PM	PHELIX & Nuc. Physics in HEDPs	Vincent Bagnoud *	GSI
15:00 PM	Adjourn		

L O N D O N ND/JINA Sunday, October 14th, 2012

7:00 - 9:00 PM	Drinks Reception	Notre Dame London Centre

L O N D O N ND/JINA Monday, October 15th, 2012

1st Session: Nuclear Science & Diagnostic Status at the NIF

8:45 AM	Welcome	Michael Wiescher*	ND
9:00 AM	Overview of NIF ignition experiments	Andrew McKinnon	LLNL
9:30 AM	Radiochemical measurements of neutron capture products at the National Ignition Facility	Dawn Shaughnessy*	LLNL
10:00 AM	Interpretation of Au activation data taken on the NIF	Chris Hagmann*	LLNL
11:00 AM	Ignition as a means of measuring (n,2n) cross sections & RAGS	Dawn Shaughnessy*	LLNL
10:30 AM	Coffee Break		

11:30 AM	Neutron diagnostics at NIF	**Jac Caggiano ***	**LLNL**
12:00 AM	Correlated data analysis for NIC	**Charlie Cerjan***	**LLNL**

12:30 AM **Lunch break**

2nd Session: Nuclear Plasma Physics

2:00 PM	Status of the ELI-Nuclear Physics project	**Victor Zamfir**	**Bukarest**
2:30 PM	Electron-ion collision spectroscopy at heavy ion storage rings as a new approach to study low-energy nuclear isomers	**Carsten Brandau***	**GSI**
3:00 PM	**Coffee Break**		
3:30 PM	A New Window to Plasma nuclear science	**Hans Hermann ***	**LANL**
4:00 PM	Laser assisted nuclear reactions	**Feodor Karpershin***	**U. St.Peterburg**
4:30 PM	Modeling and Simulation of nuclear processes in HEDP	**Brian Appelbe***	**Imp. Coll. Lond.**
5:00 PM	Quantifying low-energy nuclear reaction dynamics in NIF-plasma environments	**Alexis Diaz-Torres**	**ECT Trento**
5:15 PM	Formation of dense quantum plasma systems	**Ramprasad Prajapati**	**Guru Ghasidas U**
5:30 PM	Plasma Experiments	**Mohammed Elwadad**	**Lybia**
6:00 PM	Time evolution of fermionic systems	**Arnau Rios Huguet**	**U. Surrey, UK**

Tuesday, October 16th, 2012

3rd Session: NIF diagnostics and techniques

9:00 AM	Design of a time-of-flight detector to measure the neutron spectrum at NIF	**Robert Hatarik***	**LLNL**
9:15 AM	Activation techniques	**Darren Bleuel***	**LLNL**
9:30 AM	Prompt Gamma Ray Spectroscopy from NIF Fusion Targets	**Wolfgang Stoeffl ***	**LLNL**
10:00 AM	Nuclear Data Supporting the NIF Basic Research and Diagnostic Campaign	**Anton Tonchev***	**LLNL**

10:30 AM	**Coffee Break**		
10:45 AM	10-year diagnostic plan for NIF	**Joe Kilkenny***	**LLNL**
11:15 AM	Extracting Stopping Powers and the Alpha Energy Deposition at NIF	**Anna Hayes***	**LANL**
11:45 AM	Statistical Gamma-ray	**Sunniva Siem**	**U. Oslo**

12:15 PM **Lunch break**

4th Session: Nuclear Astrophysics

2:00 PM	Nuclear Science using High-Energy-Density Plasmas: A New Area of Research	**Johan Frenje***	**MIT**
2:30 PM	Three-Particle Final State Energy Distributions:Isomeric states in nuclear astrophysics	**Carl Brune**	**Ohio U**
3:00 PM	**Coffee Break**		
3:30 PM	Isomeric states in nuclear astrophysics	**Rene Reifarth***	**U. Frankfurt**
4:00 PM	Low energy reaction simulation	**James deBoer***	**ND**
4:30 PM	charged particles reaction predictions	**Mary Beard***	**ND**
5:00 PM	AMS, a highly sensitive detection tool for minute samples	**Philippe Collon**	**ND**
5:30 PM	Neutron Capture and Plasma Experiments: Steps to understanding the s-process environment	**Aaron Couture***	**LANL**

Wednesday, October 17th, 2012

5th Session: Atomic mediated processes

9:00 AM	Determination of Age of Various Stars Through Nuclear Reaction Rates	**Kamal Chhaya***	**SC Guja**
9:30 AM	Atomic Configuration Effects on NEET Rate in Plasmas	**Gilbert Gosselin***	**CEA**
10:00 AM	Nuclear-Plasma Interactions on Highly Excited States	**Lee Bernstein***	**LLNL/LBNL**
10:30 AM	Search for NEEC process with CRYRING@ESR	**Phil Walker***	**U. Surrey**
11:00 AM	**Coffee Break**		
11:30 AM	Electron induced nuclear excites states population effects on NIF Thulium radiochemistry	**Rob Hoffman***	**LLNL**
12:00 PM	Conclusion/ Adjourn	**Michael Wiescher***	**ND**