NLUF NEWS

Proposals for FY96

Nine proposals were submitted for consideration by the NLUF Steering Committee for FY96. The proposals included four for x-ray spectroscopy and one each for cryogenic target characterization; nuclear calibration; hohlraum diagnostic development; high-resolution, low-energy x-ray imaging of laser-irradiation imprinting; and optical imaging of the critical surface. These proposals were reviewed on 20 December 1995 by the following technical committee:

Dr. John Apruzese	(Naval Research Laboratory)
Dr. Joseph D. Kilkenny	(Lawrence Livermore National Laboratory)
Dr. Jeffrey P. Quintenz	(Sandia National Laboratory)

Approved proposals are listed in Table 68.VIII.

The OMEGA shots for proposals by Prof. Griem, Dr. Seely, and Prof. Hooper were carried out, and their FY96 activities on OMEGA are essentially complete. Professor Padalino's work on nuclear diagnostics calibration at SUNY Geneseo is also nearly completed. Professor Su is continuing to analyze the results of OMEGA experiments, and Prof. MacFarlane has shots scheduled on the Nova facility under an NLUF grant. Professor Mizuno's work on OMEGA will begin when appropriate long-scale-length plasma conditions are generated and characterized on OMEGA.

Table 68.VIII: Approved FY96 NLUF proposals.

Proposal Number	Principal Investigator	Institution	Proposal Title
194	Hans R. Griem	University of Maryland	Electric Field Measurements from Satellites to Forbidden Line Ratios in an OMEGA Upgrade Laser-Produced Plasma
196	Stephen Padalino	State University of New York at Geneseo	Calibration of Neutron Diagnostics for OMEGA
197	Joseph J. MacFarlane	University of Wisconsin, Madison	Development of Soft X-Ray Tracer Diagnostics for Holhlraum Experiments
199	John F. Seely	Naval Research Laboratory	High-Resolution Imaging of Early-Time Imprinting Using Normal-Incidence Multilayer Mirrors
200	Qichang Su	Illinois State University	Diagnostics of Core-Shell Mixing with Absorption and Emission Spectra of a Doped Layer
201	Katsuhiro Mizuno	University of California, Davis	Applications to Optical Micrograph Image Diagnostic, and Instability at the Quarter Critical Density
202	Charles F. Hooper, Jr.	University of Florida	Time-Resolved Plasma Spectroscopy of Imploded Gas-Filled Microballoons: Continuum Lowering and Pusher Dynamics

Proposals for FY97

Seven proposals were submitted to NLUF for FY97. The proposals included two experiments on x-ray spectroscopy from imploded capsules, two on laser scattering in long-scale-length plasmas, and one each on diagnostics for laser-beam-imprinting studies, studies of the nonlinearity of free space, and x-ray polarization. The proposals were reviewed on 8 August 1996 by the following technical committee:

Dr. John Apruzese	(Naval Research Laboratory)
Prof. Tudor Johnston	(Institut National de la Recherche Scientifique)
Dr. Kevin McGuire	(Princeton University)
Dr. Richard Petrasso	(Massachusetts Institute of Technology)

The committee approved five proposals for funding as shown on Table 68.IX

Table 68.IX: Approved FY97 NLUF proposals.

Proposal Number	Principal Investigator	Institution	Proposal Title
203	R. Paul Drake	University of Michigan	Laser Scattering from Long-Scale-Length Plasmas on OMEGA
204	Charles F. Hooper, Jr.	University of Florida	Time-Resolved Plasma Spectroscopy of Imploded Gas-Filled Microballoons: Emphasis on Two-Temperature Diagnostics, Line Shifts, and Pusher Dynamics
205	John F. Seely	Naval Research Laboratory	Study of 2-D Laser-Beam Imprinting Using a Double-Crystal Monochromator
206	Steven H. Batha	Fusion Physics and Technology	Is Filamentation the Origin of Stimulated Raman Scattering (SRS)? The Spatial Coherence of SRS
207	Hans R. Griem	University of Maryland	Early-Time Measurements of Soft X-Ray Emissions in an OMEGA Upgrade Laser-Produced Plasma