

Instrumentation for Diagnostics and Control of Laser-Accelerated Proton (Ion) Beams: First Workshop

Monday, August 09: Morning

09:00 – 09:30 **Welcome** - David Neely
Introduction - Paul Bolton

09:30– 10:30 **RCF and Image Plate Calibration**

Ceri Brenner, “Dosimetry Calibration of Radiochromic Film Used to Detect Laser Accelerated Protons”

Sabine Reinhardt, “Radiation Therapy with Laser-Driven Accelerated Particle Beams: Physical Dosimetry and Spatial Dose Distribution”

10:30 – 11:00

Break

11:00 – 12:00 **Correlated Plasma Diagnostics**

Paul McKenna, “Ion Acceleration as a Diagnostic of Fast Electron Generation and Transport in Solid Targets”

Alessandro Flacco, “Simultaneous Ion/Electron Detection, Advanced Solutions for Analyzing Thomson Parabola Tracks, Absolute MCP Calibration Experiment”

12:00 – 1:30

Lunch

Monday, August 09: Afternoon

1:30 – 2:30 **Correlated Plasma Diagnostics continued...**

Julien Fuchs, “Correlation Between Proton and Electron Energy Distributions + Emittance & Source Size Measurements”

Tumour Cell Irradiation

Ulrich Schramm, "Dose-Dependent Biological Damage of Tumour Cells by Laser-Accelerated Proton Beams"

2:30 – 3:10

Break and Group Photo

3:10 – 4:40 ***MCP Calibration and Thomson Parabolas***

Rajendra Prasad, "Calibration of MCP and Image Plate Detectors for Multi-MeV Ion Spectroscopy"

Vincent Floquet, "Diagnostics of Laser-Accelerated Proton (Ion) Beams on UH100"

Sargis Ter-Avetisyan. "Multipinhole Thomson Parabola Arrangement for Ion Spectroscopy"

Tuesday, August 10: Morning

9:30 – 10:30 ***Laser-Acceleration Programs and New Experiments I***

Markus Roth, "Diagnostic and Control of Laser Accelerated Ion Beams"

Scintillator Detection

James Green, "Development and Calibration of a Scintillator-Based Beam Profiler"

10:30 – 11:00

Break

11:00 – 12:00 ***Laser-Acceleration Programs and New Experiments II***

Bleddyn Jones, "Charged Particle Therapy from Lasers: Some Practical Issues"

Dario Giove, "Review of Laser-Induced Light Ion Acceleration Activities in Italy: Experimental Setup and Detector Devices for the First Proton Acceleration Experiment at Flame"

12:00 – 1:30

Lunch

Tuesday, August 10: Afternoon

1:30 – 3:30 ***Laser-Acceleration Programs and New Experiments II continued...***

Giorgio Turchetti, “Optical Injector for Protons and Biomedical Applications: the PROMETHEUS Project”

Medical Imaging

Paul Bolton, “Role of Autonomous PET in Laser-Driven Ion Beam Radiotherapy, L-IBRT”

Targetry

Martin Tolley, “Targetry at LIBRA: Production and Delivery”

Summary and Close – Paul Bolton, David Neely

End