

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

IN ABINGDON, UK
AUGUST 9 & 10 , 2010

Welcome

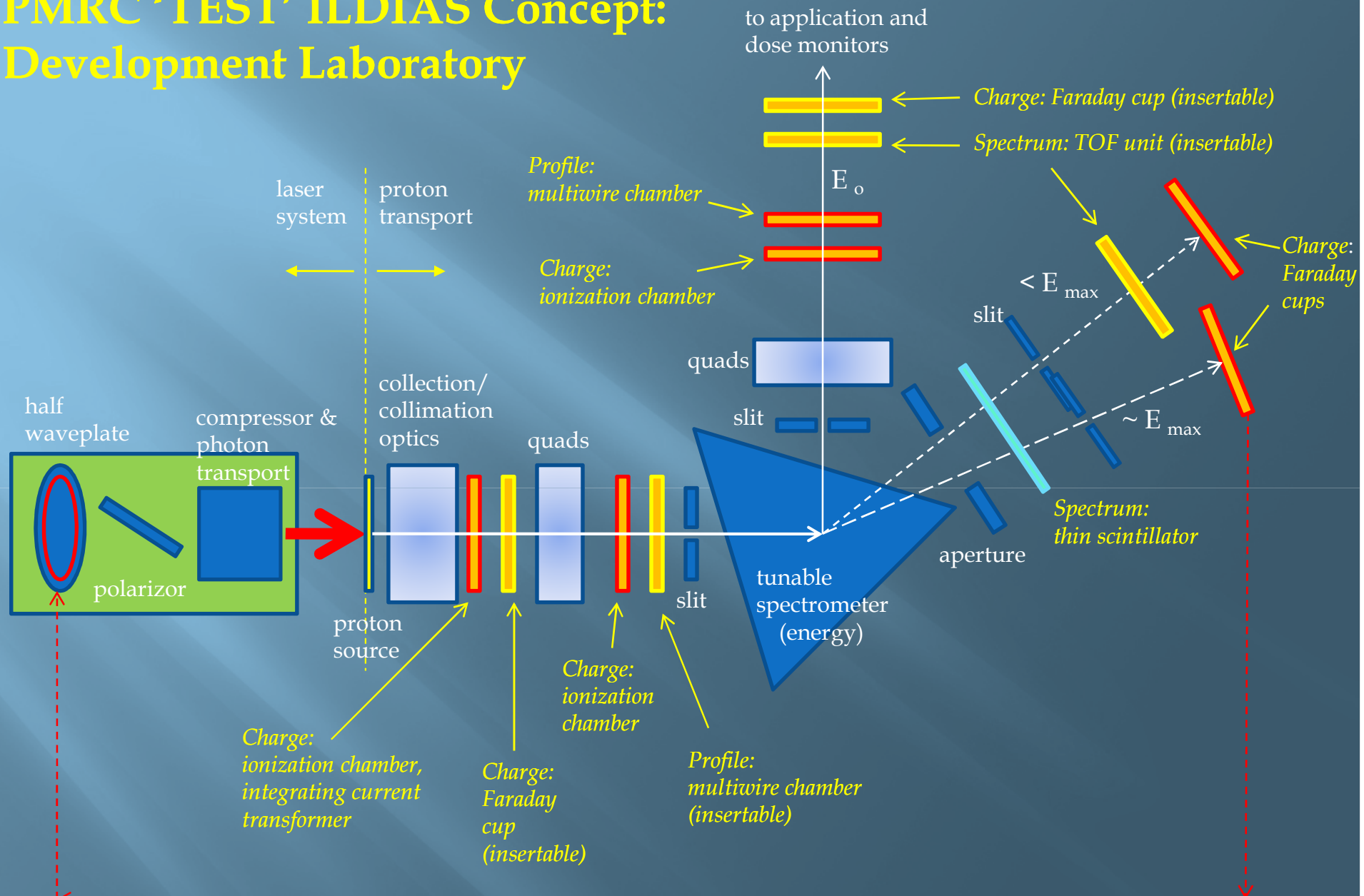
Workshop Rationale: organizers -

David Neely (CLF,STFC,RAL), Paul Bolton (PMRC,JAEA), Fridtjof Nuesslin (TUM)

symbiosis between instrumentation development and advancement of experimental science is clear;
to the extent that diagnostic physics is a well-developed discipline

becomes critical when we consider innovative (laser-driven) beamline and accelerator development;
especially with regard to medical accelerators; need to monitor beam performance, verify design physics
and optimize performance

PMRC 'TEST' ILDIAS Concept: Development Laboratory



control loop: laser pulse energy regulation by proton E_{max} readout

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diagnostics and controls co-exist and advance together for laser-driven accelerator and beamline
development; laser as an integrated system component

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(eg. contamination, emittance, energy spread, duration, stability....)

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XFEL experience at the SLAC National Accelerator Center (SLAC) – scramble for electron bunch and xray
pulse instrumentation during the past ~ 7 years

First experiments - diagnostic related and machine physics

User -assisted commissioning

Important and timely now to give a 'workshop focus' to this issue for laser- accelerated proton (ion)
beams and laser-driven systems in general (ILDIAS – integrated laser-driven accelerator systems)

younger scientists will bring these developments to a maturity for many applications

So, let us begin.....

Talks are 39 minutes (try to have 25 min talk + 5 min for Q&A)

Other items:

if you use the shared laptop , try to load it before your talk

be sure to give Michelle a copy of your talk for distribution to all participants (mailed CD)

group photo during this afternoon's break

S. Ter-Avetisyan abstract added
will move Markus Roth to be earlier tomorrow

arrange you own dinners – at Cosener's House or in town

easel for messages, announcements, other information

to promote discussion we have allotted generous time for breaks, lunches, dinners