Fundamental Science (WP12) meeting
20-21 November, 2008
Frascati - Rome

Proposed Agenda

9:00	Welcome – *Mario Calvetti, Director of LNF and Member of the HiPER Executive Board*
9.15	Overall objective of WP12, conclusions from previous meetings, updated detailed list of deliverables and tasks, progress of work, monthly reports, PMC meetings – *Michael Tatarakis*
9.45	Define minimum facility specifications for the Fundamental Science Programme. Define the factors that differentiate HiPER from other current (e.g. NIF, OMEGA) and emerging facilities (e.g. ELI) – *Michel Koenig*
10.15	An example: The use of HiPER in Atomic Physics: HOHG in highly charged ions: a scaled scenario – *Lampros Nikolopoulos*
10.45	FLAME a new sub-PW, high-rep-rate laser facility at LNF for ultra-high intensity interaction and material studies. – *Leo Gizzi*
11:15	Coffee break
11.30	Identification of the possible user community - impact on society in terms of economic & scientific output – *Stavros Moustaizis*

12.00 Specify Target chamber configurations (for multiple target areas) and specifications including shielding and radiation handling (link to WP8) – *Eugene Clark*

12.30 Specify diagnostic instruments for the fundamental science programme and the associated diagnostic data handling requirements for both single shot and rep-rate options – *David Neely*

13.00 Lunch break

14.30 PHELIX: Experimental capabilities and possible contributions to HiPER basic science programme - *Vincent Bagnoud*

15.00 Development of a training plan on HiPER related physics, opportunities, progress and requirements – *Michael Tatarakis*

15.30 Discussion:

Critical subjects to be discussed:

- What differentiates HiPER from the other facilities such as NIF and ELI? What new areas of fundamental science can be addressed by HiPER, which cannot easily be met by other facilities?
- How should the HiPER science case publically differentiate itself from that of the other facilities such as NIF and ELI?
- What amount of quantitative theoretical work - modeling is needed to support this science case, and to demonstrate that HiPER brings a unique capability?
- Define an experimental roadmap for the fundamental science programme. The role of the large (LSF) and small scale Facilities (SSF)
- How should we engage with other subject areas (e.g. astrophysics, atomic physics, etc) that could potentially make use of HiPER?
- How many target areas are required for fundamental science? What should their specification be?
- Define a diagnostic development plan.
- How will WP12 address the proposed rep-rate option?

18.00 End of meeting

On the 21st of November (Friday) a few seminar presentations will be organised. In addition, Leo is organising a visit to the site were an entirely new laboratory for ultra-high intensity laser sciences is being developed next to the FEL SPARC lab.
Please visit the deticated web site for details:
http://agenda.infn.it/conferenceDisplay.py?confId=891