Workshop summary

Status of the European XFEL and plans for a HED instrument

International Workshop on the High Energy Density Science Endstation and Associated Instrumentation at the European XFEL

Oxford, Mar 30 - Apr 1, 2009

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Conclusion

Investigations of dense plasma states and matter under extreme conditions benefit from ultrashort & intense x-ray FEL sources.

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FELs deliver bright and coherent x-ray radiation. Experiments at FLASH impressively demonstrated how this radiation can be used for HED studies.

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Next will be hard x-ray FEL experiments. Start of MECi instrument at LCLS is planned for 2011. At ~ the same time a technical design for a further instrument at the European XFEL should be realized in order to be able to have this instrument ready by end 2014/early 2015.

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Although being early, this requires input from the scientific community in terms of experimental plans and their needs. We have to continue on this.

Acknowledgement

European XFEL

International workshop on the High Energy Density Science Endstation and associated instrumentation at the European XFEL

30 March – 01 April 2009

St Catherine's College
University of Oxford, UK

The capability to produce material at ultra high energy densities is one of the prioritized areas of science for the upcoming European XFEL facility as described in the Technical Design Report (available at www.xfel.eu). Matter at such energy densities is of relevance to a number of fields of science, including basic plasma physics, materials in extreme environments, and planetary physics and astrophysics.

The workshop will bring together scientists interested in using the HEDS instrument at XFEL in order to review the present state of the field, potential experiments on XFEL, and the requirements for the facility in terms of beam characteristics, chamber configuration, diagnostics, and associated instrumentation and data acquisition technology.

The workshop will feature a series of invited lectures providing an overview of scientific and technical ideas for the endstation. Group sessions will build on the ideas presented, providing the opportunity for specific input on endstation design and capability from potential users.

Young scientists bursaries
Deadline 06 February 2009
(for details see website)

The workshop is co-funded by the European Commission through the Pre-XFEL grant. This will allow free of charge access to the workshop.
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www.xfel.eu/hed-workshop-2009
Deadline 06 February 2009

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