

SERC School on "Laser Produced Plasmas : Physics and Applications"

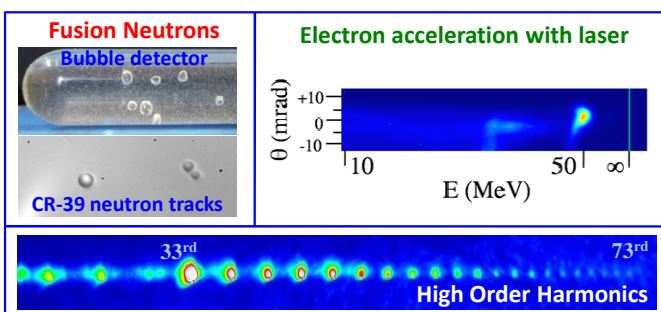
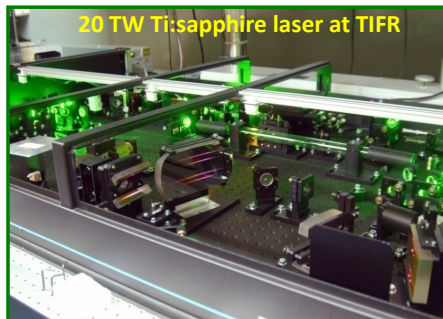
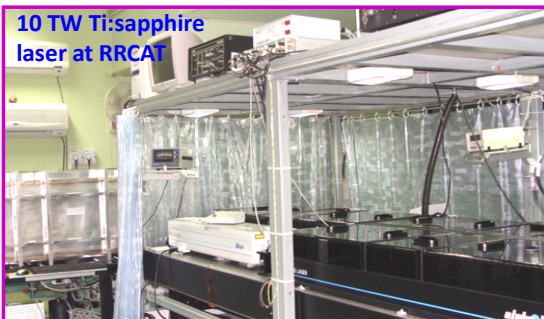
July 9 - 21, 2012

Raja Ramanna Centre for Advanced Technology, Indore 452 013, India

The Fourth SERC School on Plasma Science and Technology namely "Laser Produced Plasmas : Physics and Applications" is being held at Raja Ramanna Centre for Advanced Technology, Indore, for two weeks from 9th-21st July 2012. This School is fourth in the series of schools on plasma physics sponsored by the Science and Engineering Research Council (SERC) of the Department of Science and Technology, India.

The objective of the school is to provide an in-depth knowledge of the physics of laser-plasma interaction and laser-plasma diagnostics, along with knowledge about high power lasers used for producing plasma. The laser related topics will include : basics of lasers, generation of short laser pulses, amplification of laser pulses, and advanced amplification techniques including CPA and OPCPA. The plasma related topics covered will include : basic plasma physics, waves in plasmas, equilibrium models, radiation in plasma, plasma diagnostics, various laser absorption processes in laser produced plasmas, special processes taking place in ultra-short, ultra-high intensity laser produced plasmas etc. It will also cover plasma based applications of high power lasers such as laser induced fusion, electron acceleration, and x-ray lasers. The school will also cover some important applications of laser plasma x-ray source in x-ray radiography, phase contrast imaging, time resolved x-ray diffraction etc. The basic lectures in lasers and laser produced plasma will be mostly given by faculty members from RRCAT and specialized lectures will be given by experts from around the country. The participants will also be provided opportunity to carry out about nine hands-on experiments designed to familiarize them with the use of high power lasers in plasma generation and use of plasma diagnostics for characterization of the laser plasma source for various applications.

Applications are invited from research scholars, post-doctoral fellows, young faculty members from universities and colleges, and young researchers from R&D centers, with interest in high power lasers or laser produced plasma, for participation in the above mentioned School. A few final year students of M.Sc / M.Tech. with specialization in Lasers or Plasma may also be admitted. The total number of participants in the school is restricted to about forty. All the selected participants will be provided to-and-fro II AC train (or bus) fare, free lodging and boarding in RRCAT Guest House, lecture notes, and course related educational material. Interested persons should send their applications to the SERC School Director, via e-mail (preferred) or by post, with the following documents: i) Bio-data (including full postal address, e-mail, mobile number), ii) a brief write-up of the current academic/research activities, iii) list of publications (if any), iv) letter of recommendation from the guide / Head of Department / Head of the Division, and v) a brief write-up indicating how the School is expected to benefit the research/academic activity of the candidate. Applications can also be filled on-line (most preferred) at www.plasmaschool.in



National Advisory Committee

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Important dates related to the School

Last date of applications reaching us (web / e.mail / post)	: April 10, 2012
Intimation to selected participants (web, e.mail and by post)	: May 1, 2012
Confirmation by the participants	: May 21, 2012

For further details, please contact :

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