

addition, a special first day cover issued by the Department of Posts was released. Prof. A. K. Sood, Dr. D. D. Bhawalkar (former director, RRCAT), Prof. K. C. Rustagi (IIT, Mumbai), Dr. P. D. Gupta, and Shri. V. C Rai, (Director, Postal Services, GPO Indore), were present on this occasion. The postal department also organized a sale of the first day cover on this occasion. This was followed by a special technical session with the first talk by Dr. D. D. Bhawalkar, who traced the history of laser development and some of their recent applications in his talk titled: "50 glorious years of laser". Prof. K. C. Rustagi gave the next talk titled: "Lasers at 50, their impact on basic sciences", where he highlighted some of the significant work on non-linear optics, laser atom cooling etc. which were only possible due to the development of lasers.

Besides the above, there were seven technical sessions with a total of eighteen presentations by several luminaries in



the sphere of lasers and laser applications from all over India and three scientists from abroad. These sessions covered the following topics: Societal Applications of Lasers, Novel Lasers and Applications, Fibre & Adaptive Optics, Laser Spectroscopy, Non-linear Optics, Material Processing with Lasers, and Nano-science with Lasers. There were three poster sessions, where students and young researchers presented their research works. There were two sessions for theses presentations also, where seven Ph.D. theses on topics related to lasers and their applications were presented. The total number of posters presented in this symposium was 312, and the number of participants was 550. Both these numbers are the highest ever for any of the National Laser Symposiums held so far. The Ph.D. students' participation was also all time high at 150. The NLS-19 website used for information exchange among the organizers and participants in an on-line fashion was highly appreciated by the participants.

ILA plays a key role in the organization of this symposium. Like other years, this year too, ILA organized an exhibition of lasers and other related products, where several industries and business establishments participated. The ILA Annual General Body Meeting was also held on the first day (evening) of the symposium. ILA also organized the assessment of all theses and posters. Two best thesis awards consisting of cash prize of Rs 5,000 each and six best posters awards consisting of cash prize of Rs. 1,500 each, were given by ILA. The best thesis presentation awards were given by Dr. P. D. Gupta and the best poster awards were presented by Dr. P. K. Gupta in the concluding session.

At the end of this session, Dr. P. A. Naik thanked all the participants of the symposium and the members of various committees for the successful organization of the symposium. Finally, Dr P. D. Gupta made his observations on the conference, and thanked all persons for their support in making the symposium a grand success, and declared the symposium closed.

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N.3: I-IIFC Interaction Meeting at RRCAT

Under the aegis of Internal Committee for Indian Institutions' Fermilab Collaboration (I-IIFC), a Three day Interaction Meeting between Fermilab and Indian scientists was organized at RRCAT during October 26-28, 2010 to further enhance the collaboration in the areas of superconducting radiofrequency (SCRF) technology, accelerator physics design and related infrastructure. A group of 12 senior scientists from Fermilab, USA, were at RRCAT to attend the meeting which included Dr. Stephen Dockler Holmes, Dr. Robert Kephart, Dr.Stuart Douglas Henderson



and Dr. Shekhar Mishra. About 40 senior Indian scientists from various Indian laboratories, and about 50 scientists from RRCAT at took part in the deliberations.

Dr. P.D. Gupta, Director RRCAT welcomed the participants from Fermilab and India. Dr. S. Banerjee, Chairman, Atomic Energy Commission and Secretary,



Department of Atomic Energy in his opening remarks focused on the DAE perspectives on IIFC and he presented a talk on "Accelerators and Sustainable Nuclear Energy Programme of India". Dr. Anil Kakodkar, Member AEC and former Chairman, AEC gave a talk on "Indian Energy Program and IIFC". The potential role proton accelerators can play, in realizing the long terms energy needs of the country, was highlighted. Advances in accelerator technology showing closing gap between the requirements and the achievable targets in accelerator performance were presented by Fermilab Scientists.

Report on IIFC activities were presented by Dr. S. Kailas, Dr. Kanjilal, Dr. P.D. Gupta and Dr. R. Bhandari from BARC, IUAC, RRCAT and VECC respectively. Detailed discussions were held in the following two days. The presentations covered the various collaborative elements of SCRF technology, accelerator physics design and related infrastructure issues. Visits to various RRCAT laboratories for the meeting participants were also organized.

The talks presented at the meeting can be read at http://indico.fnal.gov/conferenceDisplay.py?confId=3659#2 010-11-19

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N.4: Topical conference on EM interaction with atoms, molecules, and clusters

The topical conference under the aegis of Indian Society of Atomic and Molecular Physics (ISAMP) is held once in every two years. The fifth conference in this series titled "Topical conference on EM interaction with atoms, molecules, and clusters" (TC-2010) was held in Raja Ramanna Centre for Advanced Technology (RRCAT), Indore during March 3 - 6, 2010. The conference was funded by BRNS, DST, BRFST, and UGC-DAE CSR. The conference was attended by scientists, researchers, and students from India and abroad. The total number of participant was around 150.

The conference covered various topics falling in the realms of interaction of EM radiation with finite-sized electronic systems like VUV, UV and IR spectroscopy of atoms and molecules, atomic and molecular structures, photoionization, photo-dissociation and photo-fragmentation, radiative and non-radiative processes, Spectroscopy of clusters, Multi-photon ionization and dissociation, Time resolved / pump-probe spectroscopy and biophysics. The highlight of the conference was a special session on the utilization of synchrotron radiation to study the physical and chemical properties of atoms, molecules, and clusters. This special session titled "Spectroscopy using synchrotron radiation" comprising of nine presentations by scientists from various synchrotron laboratories of the world was an important feature of TC-2010 as RRCAT houses two operating synchrotron radiation sources Indus-1 and Indus-2. This special session was also coupled with a visit to Indus-1 and Indus-2 by the participants of the conference. A special meeting for the potential users of Indus-1 and Indus-2 from various universities and institutes was organized to attract and enthuse them to conduct experiments on atomic, molecular, and cluster physics with synchrotron radiation. conference was inaugurated by Dr. P. D. Gupta, Director, RRCAT followed his address in which he elucidated various aspects of light-matter interaction and emphasized the importance and multi-disciplinary nature of this field. Prof. R. Srivastava, President of ISAMP addressed the gathering elaborating the various activities of the society. The key note address of the conference was delivered by Prof. Nigel Mason of Open University, UK and title of his talk was "Synchrotron Radiation - A perfect mimic of star light".

The scientific program of the conference comprised of 27 invited talks delivered by experts from abroad and India. Out of these 27 talks 11 were exclusively devoted to the application of synchrotron radiation. Remaining 16 talks covered various other topics mentioned above. Another feature of this conference was a session devoted to the presentations by young researchers specially focusing on their