

**Schedule of the two-day workshop on
“Recent Developments in Plasma based Ion Sources for Accelerators and Associated
Physics Programmes” in hybrid mode**

16-08-2022 (Day 1)

Registration (Local and internal participants): 9:00 am – 9:30 am

Session 1 (9:30 am – 10:30 am), Chair: Dr G O Rodrigues, IUAC, New Delhi

9:30 am: Inauguration of the workshop and opening remarks by Prof A C Pandey, Director, IUAC, Delhi

9:40 am: Keynote talk: Exploring the Universe with Heavy Ions by Dr Amit Roy, Former Director, IUAC, Delhi and Ex-Raja Rammana Fellow, VECC, Kolkata

10:25 am: Vote of thanks by Dr Pravin Kumar, IUAC, Delhi

High Tea

Session 2 (11:00 am – 12:30 pm; 35 + 10 minutes), Chair Dr S Muralithar, IUAC, New Delhi

11:00 am: Basics of plasma physics by Prof R Baskaran, Ex-IGCAR, Kalpakkam, Tamilnadu

11:45 am: The various types of ECR ion sources for applications in research and industries by Dr D Kanjilal, Ex-Director, IUAC, New Delhi and INSA Fellow

Lunch Break

Session 3 (2:00 pm – 3:30 pm; 35 + 10 minutes), Chair: Dr P N Prakash, IUAC, New Delhi

2:00 pm: Electron Cyclotron Resonance Ion Sources - brief history, recent experimental results and future outlook by Dr Olli Tarvainen, Scientist, STFC, RAL, UK

2:45 pm: Study of the emission of negative ions during the plasma-surface interaction: a way to develop ion sources for future fusion reactors by Prof Jean-Marc Layet, Aix-Marseille University/CNRS

Tea Break

Session 4 (4:00 pm – 5:30 pm; 35 + 10 minutes), Chair: Dr N Madhavan, IUAC, New Delhi

4:00 pm: Development of Multi ampere large area ion sources for neutral beam injectors on fusion machines - Indian perspective by Dr Mahendrajit Singh, ITER-India Project Manager, IPR, Ahmedabad, Gujarat

4:45 pm: Highly charged ions from ECRIS and application towards molecular sciences by Prof Lokesh Tribedi, TIFR, Mumbai, Maharashtra

End of Day 1

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17-08-2022 (Day 2)

Session 1 (9:00 am – 10:30 am), Chair: Dr P Sugathan, IUAC, New Delhi

9:00 am: Role of ECR ion sources in production of intense energetic ion beams for research and applications
by Dr R K Bhandari, Former Director, VECC, Kolkata and honorary visiting scientist, IUAC, Delhi

9:45 am: Plasma Ion Sources from Space Research to Material Science by Dr Mukesh Ranjan, Scientist G,
IPR, Ahemdabad, Gujarat

Tea Break

Session 2 (11:00 am – 12:30 pm; 35 + 10 minutes), Dr R Mehta, IUAC, New Delhi

11:00 am: ECR sources in VECC as injector for cyclotrons and Ion source for Rare Ion Beam
(RIB) facility by Dr Arup Bandyopadhyay, VECC, Kolkata, WB

11:45 am: 18 GHz Superconducting ECR Ion Source System at BARC and its Applications
by Mr Shardul Goel, NPD, BARC, Mumbai, Maharashtra

Lunch Break

Session 3 (2:00 pm – 3:30 pm; 35 + 10 minutes), Chair: Dr A Tripathi, IUAC, New Delhi

2:00 pm: PANDORA: an innovative use of an ECR plasma trap for interdisciplinary studies in nuclear
physics and nuclear astrophysics by Dr Angelo Pifatella, INFN, Catania, Italy

2:45 pm: Study of Nonlinear Structures in Beam-Plasma Interaction by Prof N S Saini, Department of Physics,
Guru Nanak Dev University, Punjab

Tea Break

Session 4 (4:00 pm – 5:30 pm; Talk – 35 + 10 Minutes), Chair: Dr A Sarkar, IUAC, New Delhi

4:00 pm: LASERs versus microwaves for the particle acceleration by Prof H K Malik, IIT, Delhi

4:45 pm: Concluding remarks by Dr G Rodrigues, IUAC, New Delhi

5:00 pm: Feedback/discussion – Panel; Dr G Rodrigues, Dr C P Safvan, Dr Pravin Kumar, Mr Kedarmal

End of the workshop