ACCELERATOR SEMINAR

Klaus Tinschert

Thursday, 31st January at 4 pm

SB1 1.201 (Lecture Hall)Planckstraße 1, 64291 Darmstadt

"ECRIS Upgrade,,

At the Hochladungsinjektor (HLI) of GSI the 14.5 GHz CAPRICE ECRIS (ECR Ion Source) is in operation since 1992. Even though upgraded repeatedly the ion source and its ancillary equipment show age related deterioration and imply the replacement by adequate modern technologies. Therefore it is planned to perform an upgrade and extension in a two-step approach. According to scaling laws an improved performance of ECRISs is achieved by an increase of the microwave operating frequency which in turn requires stronger B-fields for the confinement of the plasma. In a first step a conventional 18 GHz ECRIS will be built. As a very successful project has just been realised at Jyväskylä (JYFL) it was decided to acquire a copy of this innovative ECRIS. The upgrade concept further includes the realisation of a high performance Superconducting-ECRIS working at microwave frequencies beyond 24 GHz. The presentation will give an overview of the present status of the project.



