

# ACCELERATOR SEMINAR

**Dr. Xiaonan Du**

GSI Helmholtzzentrum für Schwerionenforschung GmbH

**Thursday, 01<sup>st</sup> June at 4 p.m.**

**KBW lecture hall**

Planckstraße 1, 64291 Darmstadt

## ***“Rf-Cavity Design of the new FAIR post-Stripper Linac”***

The replacement of the existing post-stripper DTL is part of the UNILAC Upgrade project, this presentation will introduce the rf-cavity design for the new tanks. The design was conducted systematically based on the boundary conditions imposed by the running upgrade activity of the rf-power alimentation system. The beta profile design is performed with cell by cell 3D simulations and the latest version of the complete design is introduced. In order to improve the performance of the cavities, the tube shape is specifically designed to obtain a more homogeneous surface field w.r.t. the existing layout, thus lowering the peak surface field being equivalent to an increase of shunt impedance. A tuning method was developed to stabilize the cavity with dedicated stem configurations.



Organizers: Dr. Giuliano Franchetti, Dr. Jens Stadlmann

