

# MM 15.09.2020

- **FoS:**
  - production of static tuners and rf-coupling loop
  - pow. conv. for quadrupoles
    - tendering ongoing
    - anticipated procurement of pieces started
  - design of dynamic tuners
  - preparation of hprf-testing
  - FoS-plating: preparation of masking
  - DT-plating: started yesterday
  - DT-study: request for budget transfer of 75 k€ 2020 -> 2021
- **Alvarez 2.0:**
  - slight design change: DT-geometry standartization to reduce cost & ease spare part handling
  - proposal given for earlier starting of cavity series tendering & prod.
- **pulsed stripper:** order placed for external consultant and fast valves
- **injector controls:** exchanging of TCLs in MCR console
- **acc. seminar on Thursday:** C. Xiao (GSI): “4d-emittance meas. evaluation“



ACCELERATOR SEMINAR

Chen Xiao  
GSI

Thursday, 17. September 2020 at 4 pm

Ort: Seminarraum Theorie and Zoom-Meeting Room  
(ID: 931 6198 2477 / PW: 950501)

**Improved method for 4d emittance evaluation**

A dedicated device to fully determine the four-dimensional beam matrix, called ROSE (ROtating System for Emittance measurements) was successfully commissioned. Results obtained with 83Kr13+ at 1.4 MeV/u are reported in Phys. Rev. Accel. Beams 19, 072802 (2016). Coupled moments were determined with an accuracy of about 10%, which is sufficiently low to reliably determine a lattice which could decouple the beam. However, the remaining uncertainty on the corresponding eigen emittances was still considerable high. The present talk reports on improvement of the evaluation procedure which lowers the inaccuracy of measured eigen emittances significantly to the percent level. The method is based on trimming directly measured data within their intrinsic measurement resolution such that the finally resulting quantity is determined with high precision.

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Secretary: Larissa Birk  
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