

# FZJ Accelerator R&D

## MT ARD strategy meeting

Nov. 28, 2016 | M. Bai, R. Gebel

# Current involvement in POF3 ARD

- 3 projects in ST2 on hardon accelerator
  - High field electrostatic electrode
  - Spin tracking for exploring the spin coherence time etc.
  - High intensity polarized ion source
- Motivated by the precision frontier, and taped heavily in the unique local competance
  - Con: bare minimum crosslink with other HGF centers

# Proposal for POF4 ARD

- Post accelerate/decelerate JULIC beam using LINAC
  - Motivated for providing variable low energy medium current light ion including polarized beams for studies in
    - High Brilliant neutron Source development
    - Medical radioisotope R&D
- Stochastic cooling for low energy deuteron beam, i.e.  $\beta \sim 0.45$
- Beam dynamics between the electron beam and light ion beam
  - For the space charge compensation
    - Strong interests for FAIR
  - For the bunched electron cooling
    - Strong interests for cooling high energy beams, EIC, HESR, etc
- EB element development
  - TDR for deuteron EDM storage ring
- High precision beam position monitor
  - Motivated by high precision EDM storage ring
  - Can also be general interests of the community