



Science and  
Technology  
Facilities Council

# Discussions

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## Invited talks

- Muon collider
- FLASH radiotherapy
- CEBAF overview
- The future of neutron sources
- Superconducting magnets

## Hardware

- Magnet for scaling, nonscaling
  - omni magnet
- CCT, superconducting
- Diagnostics
  - Priority
- RF (muon)
  - Frequency and aperture

## Optics

- Linear nonscaling
  - CEBAF based on CBETA success
  - Muon acceleration, different optimisation
- Nonscaling with fixed tune
  - Small orbit excursion, less magnet field strength
- Scaling
  - Kyoto, Kyushu, FETS-FFA (ISIS-II)
- vFFA
- ICZC
- Hybrid: synchrotron and FFA, cyclotron and FFA

## Applications

- Muon production
- SC gantry
- Medical (FLASH)
- Isotope production
- Neutron by ERIT
- High intensity FFA
- SHE

## Beam dynamics

- Orbit determines fields
- Dynamic aperture
  - Race track vs high periodicity
- Decoupling
- Decomposition of multipoles
- RF phase slip, adiabaticity

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