

Present status: future plans

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- Ring complete. Many turns
- RF effect on Time of Flight measured
- Implications being worked on
- Acceleration 'soon'

Short term

- Establish acceleration

Medium term

- More BPMs
- Correct closed-orbit distortion (magnet mapping)
- Inject over full energy range
- Measure tune and TOF for fixed energy
- Establish correct lattice
- Demonstrate and study serpentine acceleration
- Establish acceptance (large amplitudes) through painting input phase space
- Study acceleration through resonances

Long term

- Extraction kicker
- Energy measurements in extraction line

Even Longer term

- Extend diagnostic extraction line
- Spacecharge
- Low frequency RF for slow acceleration (simulation of medical machines)
- And other suggestions...

- PhD projects
 - Suzie Sheehy, Jimmy Garland, Mark Ibison
Thesis work relevant and useful for project
- Long term
 - EMMA will continue to provide opportunities for PhD (+others) training on an actual (cyclic) accelerator

Machine studies:

Characterise EMMA - write the book on nsFFAG behaviour

Capitalise on having a unique facility

~2.5 years work

Reasonable fraction(40-50%?) of ALICE beam time

Bid to RCUK/STFC in preparation

Synergies: improvements to ALICE beams (for FEL) will be very useful for EMMA.

Longer term:

Upgrades