### Workplan

Working Group 1

## **Required Beamlines**

- RTL (ring to linac geometry match)
  - Extraction geometry and beta match
    - Emit Diagnostic section?
  - Transverse collimation
    - (2 phases x 2 planes x 1 iteration)
  - Feedforward measurement
  - Turnaround
  - Spin rotator -- Jeff
  - Feedforward correction
  - Emit Diagnostic and skew correction -- FJD

# Beamlines (2)

- Bunch compressor -- PT, ESK
  BC1 RF
  - BC1 chicane(s)
    - Collimators for longitudinal DOF
  - Longitudinal diagnostics
    - Phase, sigz, correlations
  - BC2 RF
  - BC2 chicane(s)
    - Collimators for longitudinal DOF
  - Longitudinal diagnostics (same set as above)
  - Transverse emittance diagnostics
  - Transverse collimation inc. Linac protection (Frank?)

### Beamlines

- Linac -- Daniel
  - 1 intermediate diagnostic station
    - At optimal point defined by filamentation of initial energy spread
      - Until further notice
  - Look at dispersion bump interaction with LRWF
  - Wake bumps

# Post-linac -- to be delivered by WG4 and checked for completeness

- Diagnostic and coupling correction section
   2d emit only (for now)
- Beam switch yard and extraction system
  If there are 2 IPs
- Collimation
- FF with octupole doublets and all that stuff
- Detector with luminosity monitor
  - Solenoid etc
- Spent beam line inc. Lumi energy pol diagnostics

# Static Tuning and Alignment

- Bunch compressor -- PT
- Main linac -- Kirti, Jeff, Kiyoshi, Daniel, Peder, Andrea, Nicolai
- BDS -- Glen, Peder, Daniel, Mark, Kuroda, James
- Integrated studies -- all

#### Feedback

- Bunch compressor
- Main Linac
- BDS
- Integrated studies

## Flight Simulator(s)

• Full integration of dynamic and static effects across all sub-systems -- all