

# Plan of barrel layout optimization

- Parameters of DC

- Thickness = 1m (baseline)
- Optimize cell size (1 ~ 2.5cm)
- Gas: He-based, further optimized with PID

- Parameters of Si tracker

- $N_{SIT} + N_{SET} = 4$  (baseline)
- Optimize:
  - position of each layer
  - Spatial resolution of r-phi & z (with scanning of theta)

- Length of barrel region

- Limit of length of DC: discuss with hardware expert
- Scanning of resolutions vs theta

