IR and D1 Cryogenics and Heat Transfer Studies

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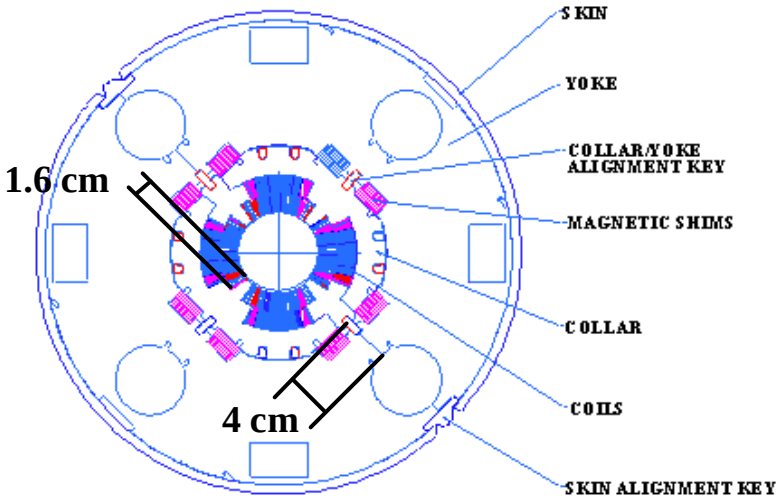
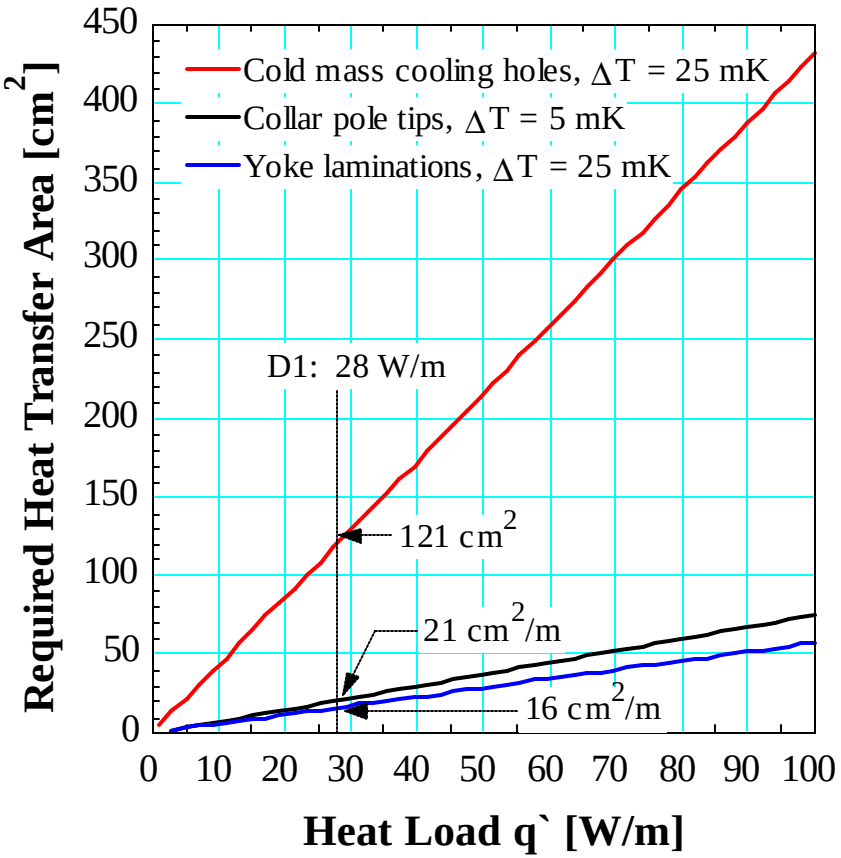
IR Cryogenics Studies – Status & Plans

- Existing model will be scaled to study LHC I cryo system limits (in progress).
- Modify the model for channel sizes, piping arrangements, and heat exchanger design.
- Assess alternatives based on ΔT, He II inventory, packing factor.
- Consider 4 K cooling later.

D1 Dipole Heat Transfer Analysis



Cold mass length = 6 m



IR Cryogenics - Collaboration

- Others have expressed interest in this task…
  - LBL has expressed interest in contributing to the IR cryogenics design study at a later date. Specific individuals should be identified so they can be kept informed of task progress.