T removal: summary & recommendations

How to validate use of carbon PFCs with tritium in ITER ?

projected x 10,000 removal rate increase is huge challenge

T removal techniques immature - lab tests insufficient - need tomakak demonstrations at relevant rate that will extrapolate to ITER

- conditioned tiles different to removed tiles ?
- redeposition ?
- wall condition recovery for O ?

Also need predictive understanding of T migration to identify areas that need to be cleaned

Status:

- DIII-D - O-bake proposed
  - comment: what fraction of D removed ? need to track D as well as C.
- D removal in JET with flashlamp planned
- Other machines ?
- Engineering development need for active methods such as laser, flashlamp...
- Need to demonstrate removal of T in hidden areas, tile gaps, (can we minimise them in design ?)
  - who will do this ? needs resources, prioritization at higher level - cultural issues....
- need to reconcile ITER operational schedule with T removal

ITER H-phase diagnostics ?

- H-balance will be confused by H_2O in tiles. Can we use trace D ?
- QMB electronics need cooling below 240 C wall temperature ?
- need also more prioritization of time-resolved wall diagnostics in current machines.