

# Discussion on Production & Characterization of Damage: Experiments & Modeling

- Participants: A. Hasegawa, R. Kurtz, M. Barthe, B. Khripunov, P. Raole, M. Wirtz
- Knowledge inventory of tungsten microstructure following exposure to various damage production processes (e.g., neutron and ion irradiation, plasmas, thermo-mechanical loading, etc.)
  - Currently used damage processes represent a simulation of the actual fusion environment
  - Erosion, tritium retention and transport properties depend strongly on tungsten microstructure
  - A database of experiments performed to explore tungsten microstructure evolution will be prepared
  - The database will summarize relevant features of exposure conditions employed, the resulting microstructure obtained, and properties measured
  - A spreadsheet will be circulated to CRP participants to collect their information
  - The database would provide greater value if its content could be expanded to include all known work being done worldwide – but this will be difficult to accomplish with the limited resources available
- Brief reports will be prepared summarizing work performed since the inception of the CRP by participants performing experiments and modeling of damage production and characterization
- Integration of the brief reports would be desirable to conserve space, but how this will be accomplished is uncertain due limited resources