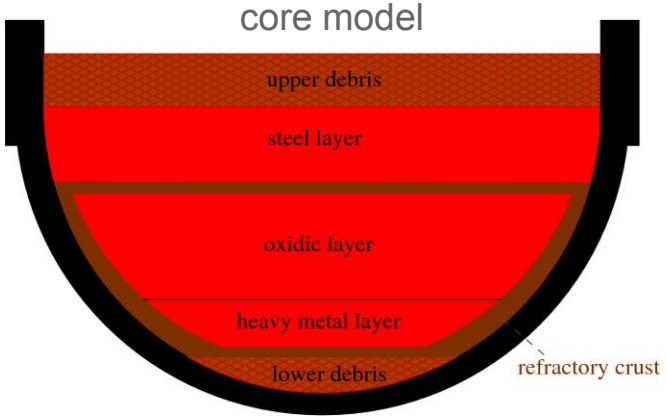
SENSITIVITY ANALYSES REGARDING THE VESSEL FAILURE

Evaluation of the transient focusing effect for a PWR

corium mass flow rates either from MAAP or PROCOR in-core model



- **PROCOR-Lower-Head and PROCOR-GenIII calculations**
- **In order to evaluate an In-Vessel-Retention related SA management strategy (reactor pit is reflooded)**
- Main accident scenario: Loss Of Off-site Power (LOOP) accident with loss of all diesels
- A limited set of uncertain parameters represented as random variables in a Monte-Carlo approach

- **Two different "modes" of vessel failure by focusing effect have been observed:**
  - an early mode that occurs during the formation of the steel layer
    - ablated steel only from the vessel ablation (no internal structure)
  - a second mode that appears later during the thinning of the steel layer because of the thermochemical effects
    - if the first mode has been avoided by the ablation of internal structures

→ one step further than the stationary "bounding situations" approach in the comprehension and evaluation of the vessel failure risk