Disruption Analysis

Module 18

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Presented on the VLT Call
Both ITER disruption cases completed (18 ms exponential and 40 ms linear)

Model includes:
- Vessel (upper, midplane and divertor ports)
- Module 18 and 17 (two modules each 20 deg.)
- Divertor (three modules 20 deg.)
- Lower triangular support

Just a few examples of the results are shown
Vessel, Shield and Divertor

VECTOR FIELDS
Shield-layout
Shield Current (Preliminary)
Radial Current Density
Toroidal Current Density
Vertical Force Density (JXB)
The first wall is very finely cut to reduce eddy currents in the copper heat sink layer.

Both disruption cases have been calculated.

The forces in the first wall are less than those in the shield.

Halo currents have also been simulated in the First Wall.

Halo currents can lift the fingers of the FW off the shield module.
First Wall layout
Disruption Current in the First Wall
Halo Current Flow In The First Wall
Halo Currents Flow Mainly in the Cu