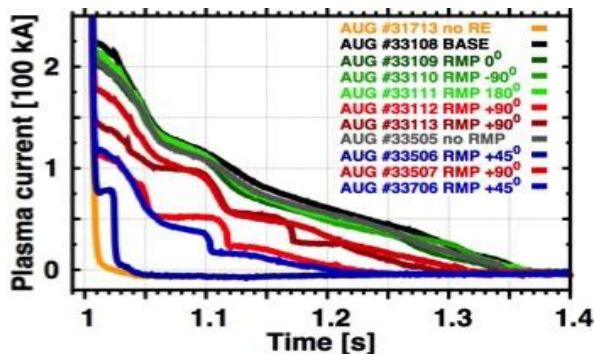




Physics, control and mitigation of disruptions and runaway electrons in the EUROfusion Medium Size Tokamaks science programme

- The EUROfusion Medium Size Tokamaks (MST) Task Force coordinates the European activities in the ASDEX-Upgrade (AUG), MAST-U and TCV tokamaks
- The MST Task Force has dedicated a significant part of its 2014-16 activities to
 - **Disruption prediction, avoidance and mitigation**
 - **Runaway electron control and suppression**



Example of the results

$n=1$ magnetic perturbation starting before disruption suppresses runaway electron in AUG, provided the right phase is used.

Phase of applied MP strongly influences the process, from no effect to suppression when resonant with $q_{\text{edge}}=4$ (before disruption)