

# Summary of Paper EX/5-1

## An ITPA joint experiment to study runaway electron generation and suppression

A study of runaway electrons under well-controlled, well-diagnosed conditions in a number of tokamaks finds that the threshold  $E$ -field for both onset and decay of runaway electron (RE) signals is at least 4 – 5 times above the Connor-Hastie  $E_{\text{crit}}$

- Conversely, the density at which RE's are suppressed for a given loop voltage is at least a factor of 4-5 less than theoretically predicted

This suggests that there are other significant RE loss mechanisms in addition to collisional damping, even in steady-state quiescent plasmas.

It also suggests that mitigating runaways on ITER may not require fueling to the Rosenbluth density.

