

G. Papp *et al.*: Runaway electron generation and mitigation on the European medium sized tokamaks ASDEX Upgrade and TCV

- **Reliable runaway electron (RE) scenarios developed on both AUG and TCV**

- ➔ Low density ($0.25\text{-}3.5 \times 10^{19} \text{ m}^{-3}$), circular plasmas
- ➔ Pre-disruption suprathreshold seed survives the quench
- ➔ Confident RE beam position and current control
- ➔ Full conversion of Ohmic into RE current on TCV
- ➔ RE generation in TCV quiescent plasmas if $E/E_c > 15$ (a)

- **Secondary injection of neon or argon leads to runaway dissipation / suppression (b)**

- ➔ HFS and LFS injections are practically identical, ex-vessel 2nd MGI requires ~2x more gas than in-vessel

- **Resonant magnetic perturbation on AUG significantly decreases RE beam current (c)**

- Elongated ($\kappa = 1.4$) TCV plasmas lead to no post-disruptive RE beam generation

