

Divertor and Core Plasma Performance Optimization Enabled by Direct Feedback Control of Surface Heat Flux on Alcator C-Mod's High-Z Vertical Target Plate Divertor, *D. Brunner et al.*

- Developed system to control injection of impurities based on accurate, real-time measurements of surface heat flux
- Controlled peak surface heat flux $< 10 \text{ MW/m}^2$ with $H_{98} > 1$ under steady conditions
- Sobering projection to reactors: gas puff actuator is very slow ($> 100 \text{ ms}$) compared to plasma transients ($< 10 \text{ ms}$), need to find more stable plasma system

