CONTROL OF THE X-POINT RADIATOR IN FULLY-DETACHED ASDEX UPGRADE H-MODE PLASMAS

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- **X-point radiation is a stable operational regime**
  Cold (1-2eV) and dense (≥ $3 \cdot 10^{20} m^{-3}$) plasma inside confined region
- **Movement inside the confined region can be actively controlled**
- **This demonstrated the first control of full detachment!**

- **A high location of the radiator above the X-point leads to ELM suppression**
- **Regime characteristics:**
  - ✓ Close to 100% f_{rad}
  - ✓ Provides an operational window between detachment and radiative collapse
  - ✓ Offers as simple observer for the detachment state
  - ✓ ELM suppression at high density, with moderate confinement reduction