Detachment assisted by nitrogen at $P_{\text{rad, div}}/P_{\text{sol}} \sim \frac{1}{2}$ in both JET-C and JET-ILW

- Analysis of SOL conditions for $N_2$ seeded H-mode plasmas in JET-C and JET-ILW
- LFS detachment by nitrogen, in both JET-C and JET-ILW, when $\frac{1}{2}$ of the SOL power is radiated in the divertor
  - Lower intrinsic radiation in JET-ILW, compensated by stronger N radiation
  - Increase of pedestal $D_0$ flux with divertor radiation
- 20 – 50% higher $D_2$ versus $D_0$ fraction in the divertor recycling fluxes predicted for carbon versus tungsten components
  - Enhanced molecular power dissipation in JET-C $\Rightarrow$ 10 – 20% lower $P_{\text{DIV}}$