Confinement in Wendelstein 7-X Limiter Plasmas

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- Experimental background in the first Operational Phase
  - inboard graphite limiters
  - fuelling still determined by outgassing
  - yet high impurity content from metal walls (pure metaoeroperational range:
  - quasi-stationary discharges with high reproducibility

\[ T_e = 8\ldots10 \text{ keV}, \quad T_i = 1.5\ldots2 \text{ keV}, \quad n_e = 2\ldots3 \times 10^{19} \text{ m}^{-3} \]

- Energy content, power balance and global energy confinement
  - \( \tau_E \sim 80 - 160 \text{ ms} \sim \tau_{E, \text{ISS04}} \)
  - with configuration factor \( \sim 1 \)
    (although limiter plasmas)

- Local transport analysis
  - Core Electron Root Confinement
    not reaching fully neoclassical conditions in the core
  - on- and off-axis ECRH heating
    no profile stiffness observed