

CWG

Edge Turbulence Data Base

The EDB is structured as to contain one time series per file and radial position including coordinates and acquisition parameters as well as some meta data. The present structure is the basis on which data can be stored consistently. To guarantee consistency in particular with respect to the physical issues addressed, please take account of the the following

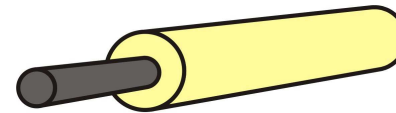
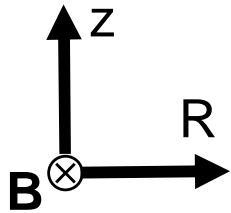
Guidelines

contact: ramisch@ipf.uni-stuttgart.de

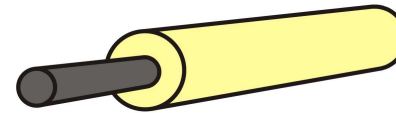
- ▶ 1) The data should consist of Langmuir-probe measurements of ion-saturation current and floating-potential fluctuations with high temporal resolution ($\sim 1\text{MHz}$) as a low-level approximation of density and plasma-potential fluctuations.
- ▶ 2) The time series should be as long as possible for proper statistics, ideally 100kS and more, at least $\sim 10\text{kS}$.
- ▶ 3) Data should be taken from a reasonably stationary phase of the discharges. In the case of reciprocating probe systems this means, that the signal has to be cut into pieces with reasonable variations in the equilibrium compromising about radial localization and length of these pieces.
- ▶ 4) Data should be free from inversions (\rightarrow e.g. $n \sim I_{i,\text{sat}}$, $\phi_{\text{plasma}} \sim \phi_{\text{float}}$) and interruptions (bias switch-off, ELMs, etc).
- ▶ 5) Data should not be affected seriously by filter characteristics and phase delays (especially important for transport analyses).

- ▶ **6) Data should be grouped by discharge conditions, ideally a radial profile. A list of files in the submitted group or a list of files, which form a radial profile, should be provided.**

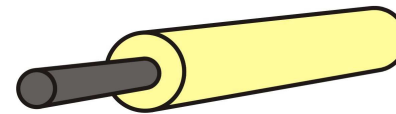
- ▶ Turbulent-transport data, $1 \times I_{\text{isat}}$, $2 \times \phi_{\text{float}}$ (3 files), N radial positions (3xN files), ideally profiles across separatrix.



Floating potential (V)
DC + AC



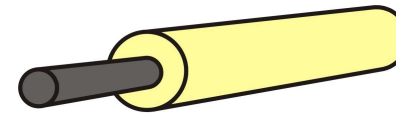
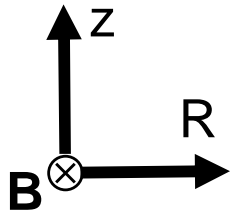
Ion-saturation current (mA)
DC + AC



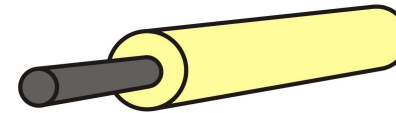
Floating potential (V)
DC + AC

- ▶ Time series should include DC values for normalisation purposes.
- ▶ Meta data to be provided: n (m^{-3}), T_e (eV), T_i (eV), B (T), q near the separatrix, working gas (mass number), minor and major radius (m), direction of B (ccw:-1, cw: 1)

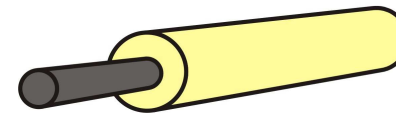
- ▶ Turbulent-transport data, $1 \times I_{\text{isat}}$, $2 \times \phi_{\text{float}}$ (3 files), N radial positions (3xN files), ideally profiles across separatrix.



Floating potential (V)
DC + AC



Ion-saturation current (mA)
DC + AC



Floating potential (V)
DC + AC

- ▶ Meta data to be provided: direction of B (ccw:-1, cw: 1).
- ▶ Long-Range Correlations should be present!