

Summary slide TH P6-4, Y. Marandet et al.

When using transport codes (SOLPS, Soledge2D-EIRENE) with Monte Carlo codes, results are affected by statistical noise. Then:

- ✓ The **mean solution** is the **proper solution** to the problem
- ✓ It can be **estimated by time averaging** in the **Statistical Steady State**
- ✓ need to run the code for $T \gg \tau_c$ in that phase = **price to pay**
- ✓ It is the solution of an equation with **spurious noise-induced terms**, similar to **turbulent fluxes**; can be estimated from the **SSS too**
- ✓ Could ultimately lead to a criteria useful to make sure that noise “does not perturb the solution too much”.
- ✓ **Time correlations** in the noise play an essential role. Freezing the noise on time larger than the relaxation time of the system can introduce marked biases in the solution. Otherwise the system is very robust to noise