

Input parameters

Turbine/farm design C_T', λ, L, H_F

Environmental $C_{f0}, \frac{\tau_{t0}}{\tau_{w0}}$

Step 1. Obtain β from $C_T^* \frac{\lambda}{C_{f0}} \beta^2 + \beta^2 = 1 + \left[1.18 + \frac{2.18 \frac{H_F}{L}}{1 - \frac{\tau_{t0}}{\tau_{w0}}} \right] (1 - \beta)$

n.b. C_T^* is calculated using Eq. (4) and is then multiplied by $1/N^2$ to account for LES resolution effects

Step 2. Obtain η_{FS} from $\eta_{FS} = \beta^3$