1 Change of variable γ to γ_E, which represent the same quantity

- Equation 9:

$$F = \frac{1}{2} C_T(\beta, \lambda, \gamma_E) \rho A_r U_{wind}^2,$$

- Page 9 line 51: $C_T(\beta, \lambda, \gamma_E)$
- Page 9 line 53: yaw misalignment γ_E
- Equation 11:

$$P = \frac{1}{2} C_p(\beta, \lambda, \gamma_E) \rho A_r U_{wind}^3,$$

- Page 9 line 66: $C_P(\beta, \lambda, \gamma_E)$

2 Change of variable γ_E to γ_z in figure 4 and caption

The figure has been updated with γ_z, which represents local yaw misalignment, instead of γ_E, which represents the misalignment at hub height. The subscript z here refers to the height above the ground which in turn is a function of azimuthal position θ and radial position r.

2.1 Old figure

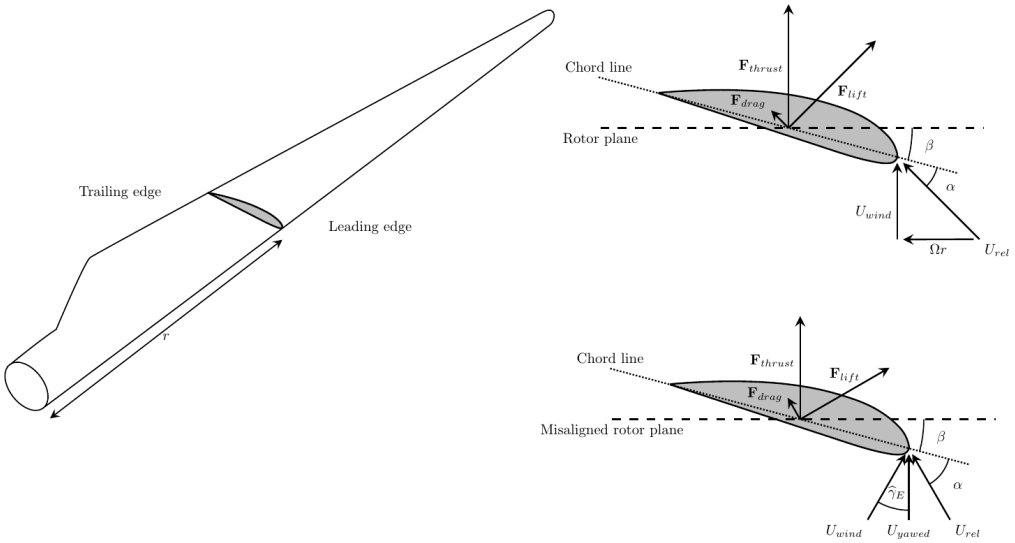

Figure 4. Blade element dynamics under normal and yawed conditions, $\widehat{\gamma}_E = \gamma_E \sin(\theta)$ and $U_{yawed} = U_{wind} \cos(\widehat{\gamma}_E)$. Illustration adapted from Howland et al. (2020).

2.2 New figure

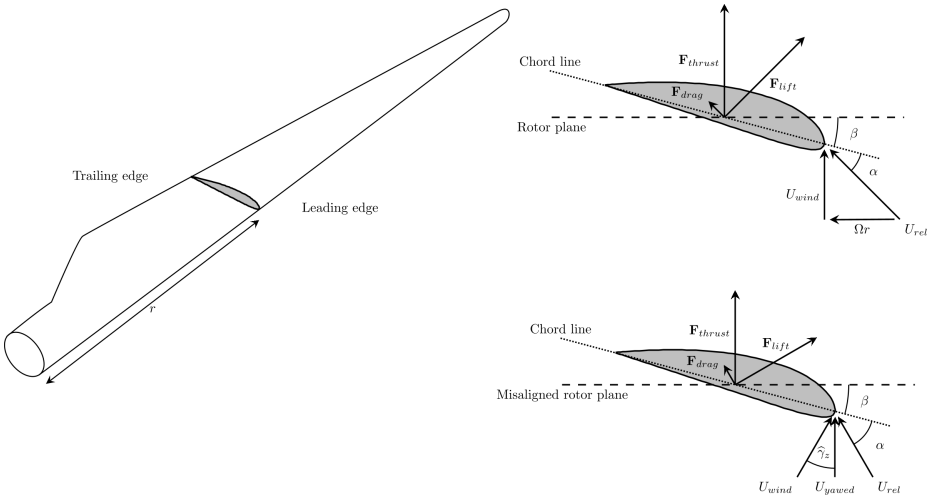

Figure 4. Blade element dynamics under normal and yawed conditions, $\widehat{\gamma}_z = \gamma_z \sin(\theta)$ and $U_{yawed} = U_{wind}\cos(\widehat{\gamma}_z)$, where γ_z is the local yaw misalignment at radial position r and azimuthal position θ. Illustration adapted from Howland et al. (2020).

References

Howland, M. F., González, C. M., Martínez, J. J. P., Quesada, J. B., Larranaga, F. P., Yadav, N. K., Chawla, J. S., and Dabiri, J. O.: Influence of atmospheric conditions on the power production of utility-scale wind turbines in yaw misalignment, Journal of Renewable and Sustainable Energy, 12, 063 307, https://doi.org/10.1063/5.0023746, 2020.