Parameters

- Aerodynamic Force $\overline{F_A} = \overline{L} + \overline{D}$
- Lift Force L $[N]$
- Drag Force D $[N]$
- Aerodynamic Moment M_A $[Nm]$
- Dynamic Pressure $q = 1/2\rho V^2$ (Bernoulli) $[Pa]$
- Chord Length c $[m]$
- Surface Area $S = b \cdot c$ $[m^2]$ (Rectangular)
- Wing Span b $[m]$
- Lift Coefficient $C_l = L/(1/2\rho V^2 \cdot S)$
- Drag Coefficient $C_d = D/(1/2\rho V^2 \cdot S)$
- Moment Coefficient $C_m = M_A/(1/2\rho V^2 \cdot c \cdot S)$
- Angle of Attack α $[rad]$ (positive in clockwise direction)
- Lift curve slope $a = C_{l/\alpha} = C_l/\alpha \approx tan(angle\,x - axis\,to\,curve)$
- Pitch angle θ (Rotation w.r.t elastic axis)
- Lunge h (Deflection of elastic axis parallel to lift)

über