

## ODEs

$$f''' - f'^2 + ff'' - A \left( \frac{\eta}{2} f'' + f' \right) = 0,$$

$$\theta'' + Pr [Nt\theta'^2 + Nb\theta'h' + f\theta'] - \frac{APr}{2}\eta\theta' = 0,$$

$$h'' + \frac{Nt}{Nb}\theta'' + LePrfh' - \frac{LePrA}{2}\eta h' = 0.$$

## Boundary conditions

$$f(0) = \frac{f_w}{LePr}h'(0), f'(0) = -1 + af''(0), \theta(0) = 1 + b\theta'(0), Nbh'(0) + Nt\theta'(0) = 0$$

$$f'(\eta) \rightarrow 0, \theta(\eta) \rightarrow 0, h(\eta) \rightarrow 0 \text{ as } \eta \rightarrow \infty.$$

## Engineering coefficients

$$C_{fx}\sqrt{Re_x} = f''(0), \frac{Nu_x}{\sqrt{Re_x}} = -\theta'(0), \frac{Sh_x}{\sqrt{Re_x}} = -h'(0).$$

## How to obtain this type of solution

