

0.1 Exercise 2 - Fluid tutorial group B

A viscous fluid of constant density, ρ , and kinematic viscosity, ν , flows over a flat plate inclined at an angle α and moving with a constant velocity V_w . The flow is stationary and no pressure gradients are applied. The only body force acting on the fluid is due to gravity, g . You can assume zero velocity component in the direction orthogonal to the plate and negligible air resistance at the interface between the viscous fluid and air ($y = h$).