Hydrodynamics
Homework 8: Vorticity
5. December 2024

Problem:
For the slightly modified Couette flow

$$u = U\frac{y}{h}, \quad v = V \sin\left(\pi\frac{x}{h}\right),$$

where U, V and h are constants. Is it possible to describe it by the velocity potential or by the stream function? Compute it.