

Flow near a plate suddenly set in motion

1

Stokes' first problem

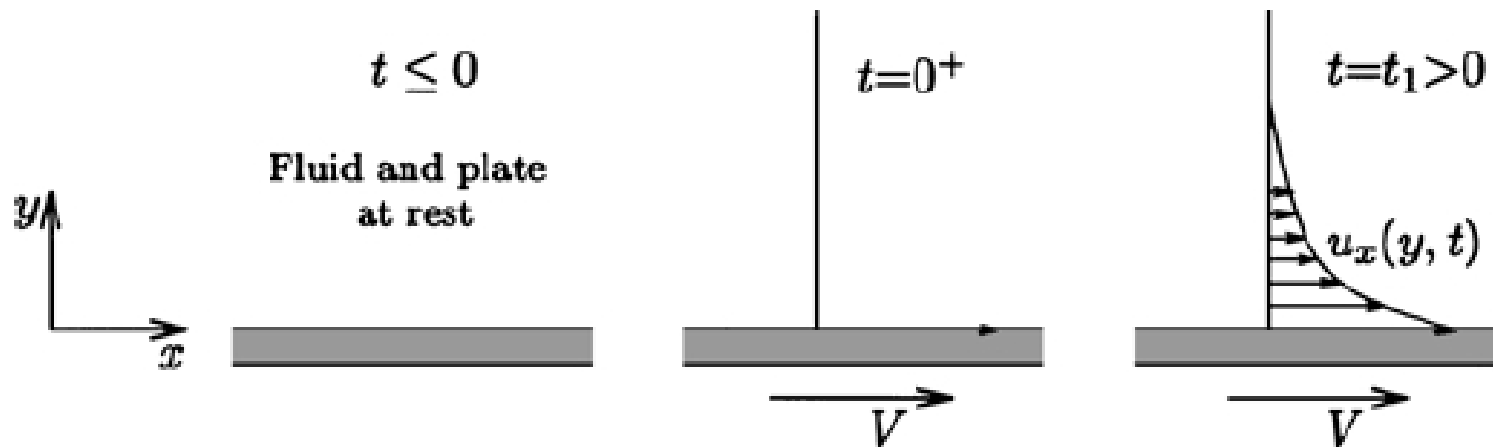


Figure: Flow near a plate suddenly set in motion.

Flow near a plate suddenly set in motion

2

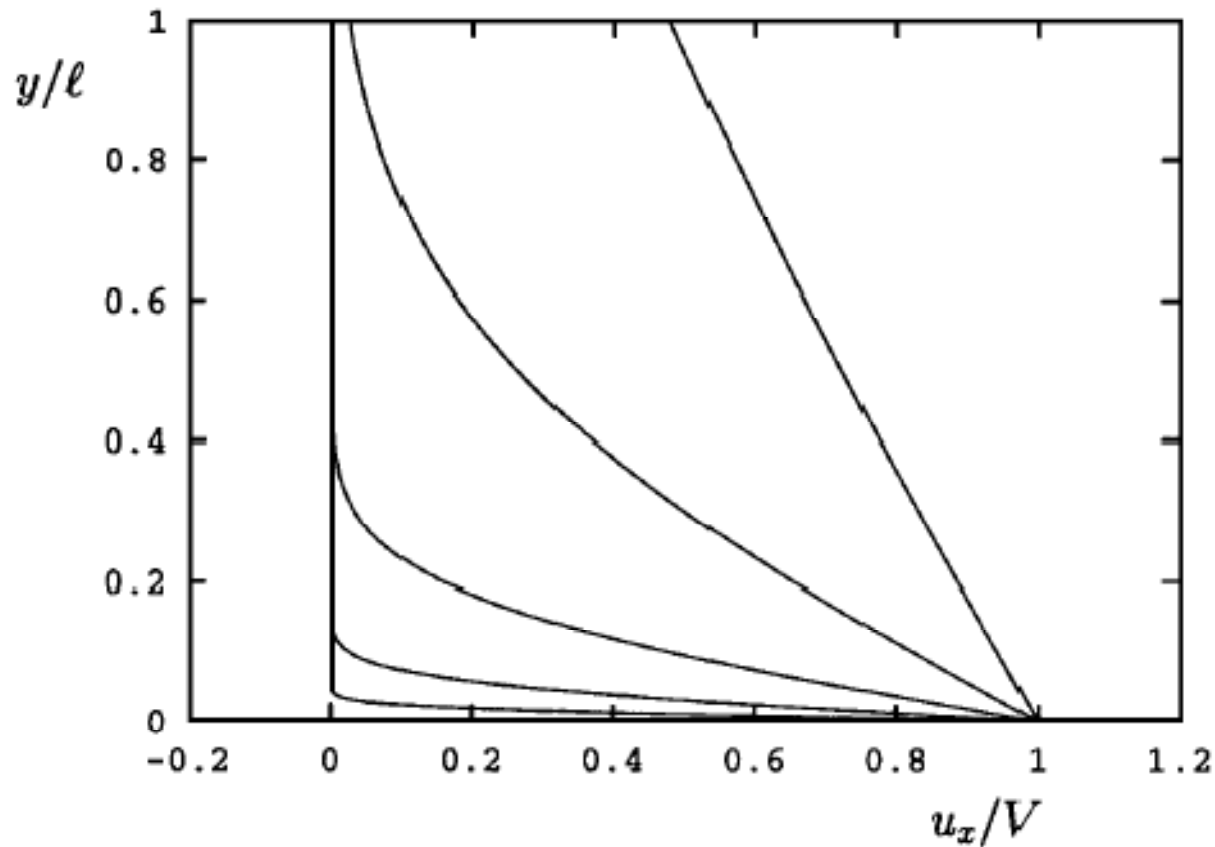


Figure: Transient flow due to the sudden motion of a plate. Velocity profiles at $vt/l^2=0.0001, 0.001, 0.01, 0.1$ and 1 , where l is an arbitrary length scale.