

# effective turbulent diffusivity

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$\hat{x}$  – momentum:  $\frac{\partial \overline{\rho v_x}}{\partial t} + \frac{\partial \overline{\rho v_x v_z}}{\partial z} = 0$

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re-write as:  $\frac{\partial \overline{\rho v_x}}{\partial t} = - \frac{\partial \overline{\tau_{xz}}}{\partial z}$