

$$\frac{\partial C_i}{\partial t} = u \frac{\partial C_i}{\partial x} + v \frac{\partial C_i}{\partial y} + \frac{\partial}{\partial x} \left(k \frac{\partial C_i}{\partial x} \right) + \frac{\partial}{\partial y} \left(k \frac{\partial C_i}{\partial y} \right) + R + D + S$$

