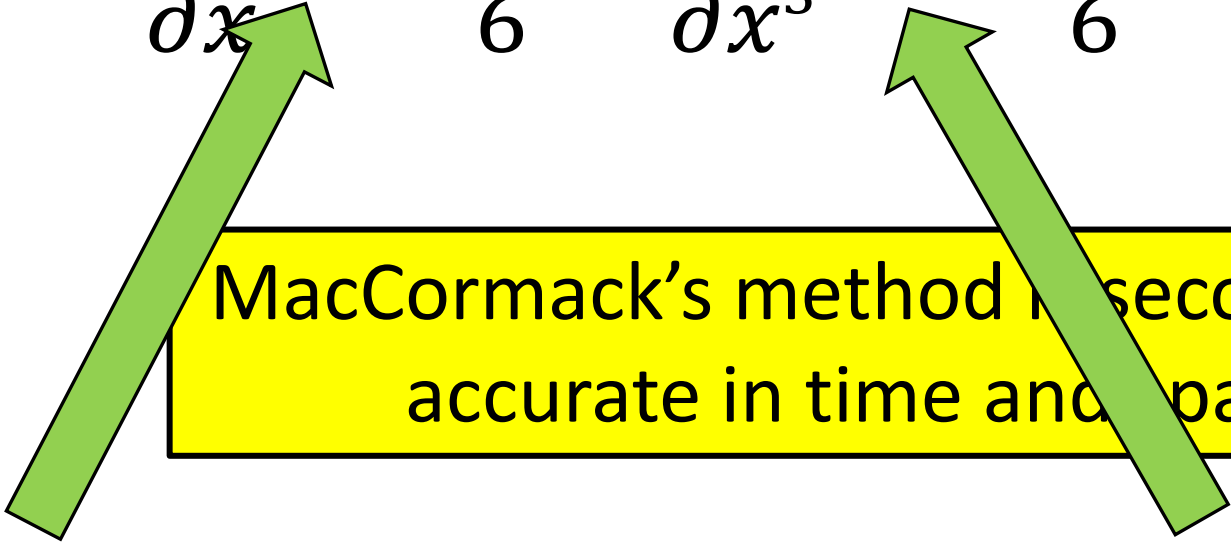


$$\frac{\partial u}{\partial t} = -c \frac{\partial u}{\partial x} - \frac{c(\Delta x)^2}{6} \frac{\partial^3 u}{\partial x^3} + \frac{c^3(\Delta t)^2}{6} \frac{\partial^3 u}{\partial x^3} + \text{H.O.T}$$


MacCormack's method is second order accurate in time and space!

**Error in Lecture (at 9:56 mark):** Signs of the second-order terms were incorrectly flipped (Hat tip to Matt Williams for identifying the error)