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MTS UG LECTURE HALL
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$$dV = \frac{\partial V}{\partial t} dt + \frac{\partial V}{\partial S} dS + \frac{1}{2} \frac{\partial^2 V}{\partial S^2} dS^2 = 0$$

In case of a European call option,
 Boundary condition: $V = \max(S - K, 0)$ when $t = T$
 put option: $V = \max(K - S, 0)$ when $t = T$

$$\frac{\partial V}{\partial t} + \frac{1}{2} \sigma^2 S^2 \frac{\partial^2 V}{\partial S^2} + rS \frac{\partial V}{\partial S} - rV = 0$$

