

PDE for continuous x

$$\dot{g}(x,t) = \text{---}$$

on domain $0 \leq x \leq h \cdot \Delta x$

$$\text{b.c. } g(x = h \Delta x, t) = 0$$

discrete (Euler) $h < \Delta x$.

$$\longleftrightarrow g(i \cdot \Delta x)$$

continuous

Gillespie

g_i

$$g_i = g_{i+1} \text{ --- } g_{i+1} \text{ --- } u_{i+1} \text{ ---}$$

$$g(x) + \Delta x \frac{\partial g}{\partial x} + \frac{1}{2} \Delta x^2 \frac{\partial^2 g}{\partial x^2} -$$

$$\overline{S(x)}$$



$$S \sim e^{-\frac{287}{2}}$$

$$\left[S_0 = \frac{\partial^2}{\partial x^2} \right]$$

$$\left[S_1 = \frac{\partial}{\partial x} \Delta x^2 \frac{\partial^2}{\partial x^2} \right]$$

$$S_2 = \frac{1}{2} (S_{1-1} + S_{1+1} - 2S_1)$$

$(S(x-\Delta x) + S(x+\Delta x) - 2S(x))$

