

- Function of space :

String subjected to external force

$$y''(x) = p(x)$$

- Function of time :

Fall of free body

$$m\ddot{x}(t) = mg$$

- Function of space and time

Displacement response of tall building

$$\rho\ddot{u}(x, t) = -EIy''''(x, t)$$

Wave phenomenon

$$\rho\ddot{u}(x, t) = EAu''(x, t)$$

- 宇: 上下四方
- 宙: 古往今來
- 一維: rod
- 二維: plate
- 三維: solid(dam)
- 單變數: x or t (ODE)
- 多變數: x and t (PDE)