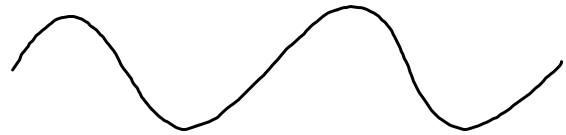
Class timings

Tue, Wed, Thu 12 → 12:55 PM

Wave mechanics



Simple harmonic motion

Wave equation

$$\frac{\partial^2 f}{\partial x^2} = \frac{1}{v^2}\frac{\partial^2 f}{\partial t^2}$$

1D

$\frac{d}{dx}$

$\frac{\partial}{\partial x}$

$f(x,t)$

Quantum Physics (PHY 106)

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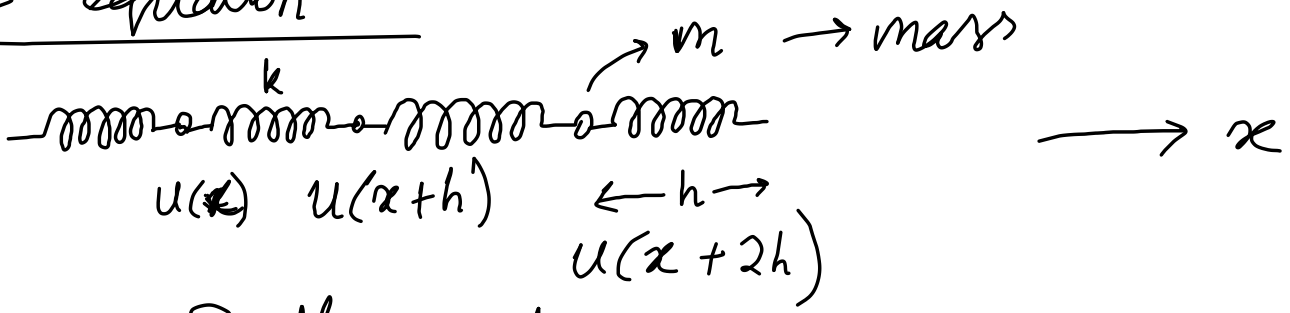
Evaluation

Midsem	30%	
Endsem	50%	
Quiz 1	5	1 Feb
Quiz 2	5	5 April
Assignments	10	

$$F_{\text{Newton}} = ma(t) = m\frac{\partial^2}{\partial t^2}u(x+h,t)$$

$$\frac{\partial^2}{\partial t^2}u(x+h,t) = \frac{k}{m}\Big[u(x+2h,t) - u(x+h,t) - u(x+h,t) + u(x,t)\Big]$$

Wave equation



Displacement

$$F_{Hook} = F_{x+2h} - F_x$$

$$= k\left[u(x+2h,t) - u(x+h,t)\right]$$

$$- k\left[u(x+h,t) - u(x,t)\right]$$