

3306 physics lectures, Spring 2026

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https://www.physics.smu.edu/saptaparnab/PH3306_Spring_2026/

Based on Simon Dalley's lectures delivered in spring 2025



WARM UP 4: Transverse Wave Interference (Halliday 16.4-16.7)

Write your answers in the space following the warm-up question if you can. Write as if you are explaining to a fellow student. If you need more space, you are probably over-thinking things.

What is the phase difference between waves of the same direction, frequency, and amplitude for

- (a) destructive interference an odd multiple of π
- (b) constructive interference? a multiple of 2π
- (c) intermediate interference? any phase that is not (a) or (b)

What is a phasor?

Write an equation representing the height y of an anti-node and time t .

Why must a reflected wave pulse from a hard end return inverted?

Explain in words the conditions necessary to produce resonance of waves.