

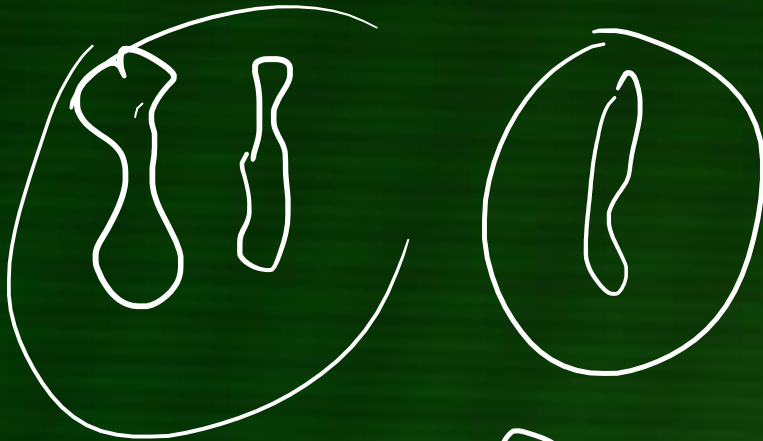
Durfee Lab Group Meeting

May 18, 2021

Agenda

- Getting Paid
 - <https://www.uvu.jobs/postings/22506>
- Getting access to the lab
 - <https://www.uvu.edu/facilities/electronic-forms/eform-staff-interior-door-proximity.html>
- IPSII
- Projects
 - Test laser coherence lengths
 - Help Daniel with parallel imaging
- Python game
- Spyder and Jupyter
- Fourier Series

IPS II



$P_n(x)$

$f(x)$



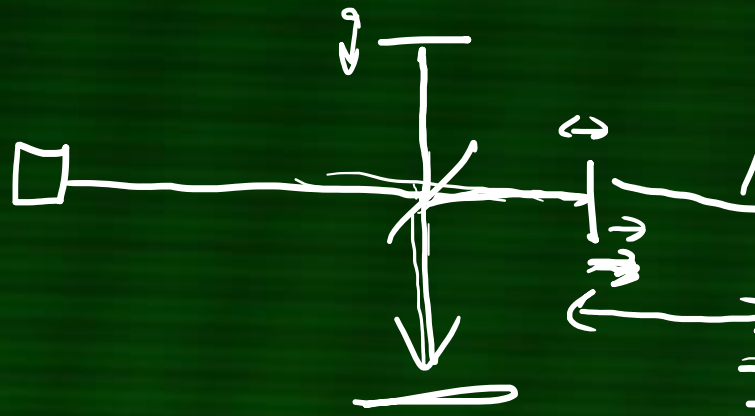
$$\underline{S_n} = \int dS_n = \int \underline{P_n(x) f(x) dx}$$

$$P_n = 1 + \sin(\underbrace{n k_0 x})$$

$$S_n = \int \underbrace{P_n \xi}_{dx} = \int (1 + \sin(n k_0 x)) \xi dx$$

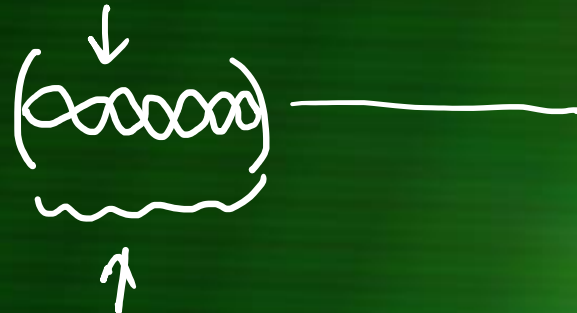
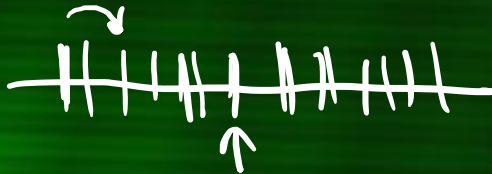
$$= \underbrace{\int \xi(x) dx}_{dx} + \underbrace{\int \xi(x) \sin(n k_0 x) dx}_{dx}$$

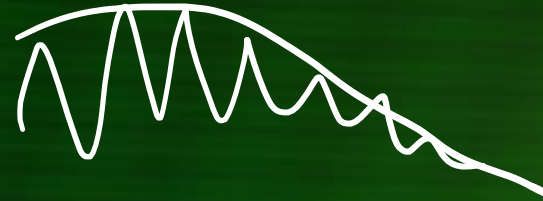
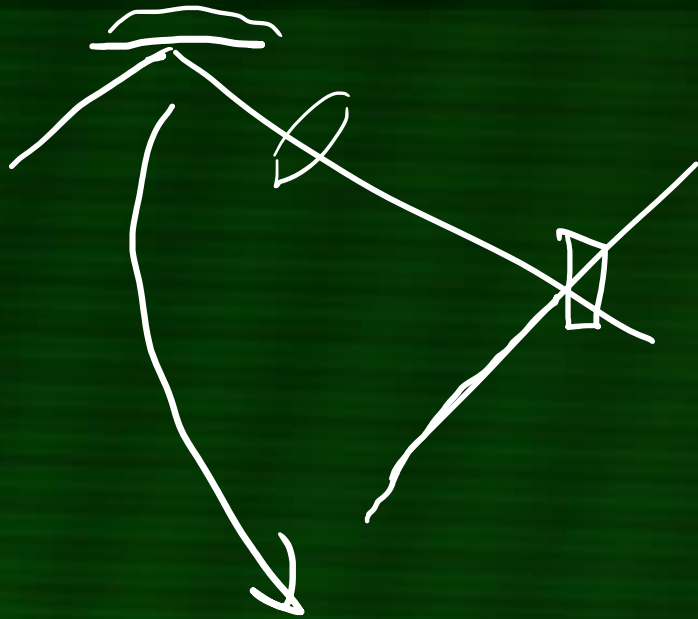
Measuring Laser Coherence Length



$$A \sin(kx_1 - \omega t) + A \sin(kx_2 - \omega t)$$

$$= 2A \cos\left(k \frac{x_1 - x_2}{2}\right) \sin\left(k \frac{x_1 + x_2}{2} - \omega t\right)$$





SENSE GRAPA