

Agenda CENG 3315 February 9, 2022

HW2 Due Thursday 2/10/2022

Note: Please be neater (Some of you). Do the problems on scratch paper and copy to your HW to turn in to me. SHOW YOUR WORK NOT JUST THE ANSWER. Thanks

When a value has a unit – include the unit, i.e. .45 ms. (It can help a lot to avoid mistakes in some problems.)

Fourier Series of a Pulse Train



1_FourierPulseTrain.
pdf

Continue CHAPTER 3 - Good Review Videos Here

Intro to FOURIER SERIES: The Big Idea

43,021 views May 3, 2021 10:43

[Dr. Trefor Bazett](#)

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Watch the first video in my playlist here: <https://www.youtube.com/watch?v=wmClr...> 0:00 Big Idea of Fourier Series [1:08](#) 3 Important Integrals [2:33](#) The formulas for the coefficients [6:40](#) Full Example [11:06](#) General Case

<https://www.youtube.com/watch?v=wmClrpLBFds>

He uses period of $0-2*\pi$ sec. I typically use $0 - T$ sec.

How to Compute a FOURIER SERIES // Formulas & Full Example

27,635 views May 6, 2021 13:15

<https://www.youtube.com/watch?v=ijQaTAT3kOg>

How do you actually compute a Fourier Series? In this video I walk through all the big formulas needed to compute the coefficients in a Fourier Series. First we see three integrals that will really make everything easier, integrals of products of sin and cos terms of different frequencies. Then we will use these to compute out formulas for the coefficients of the in and cos terms. Next we see a full example computing

everything, and finally see the formulas for the general situation.

[FourierProblemSession EvenPulseTrain](#)

[MATLAB Fourier EvenPulseTrain](#)

[Fourier MATLAB Symbolic&Pulses](#)

[Algorithm For Fourier Series](#)

[FourierCh8 TLH](#)

[FourierReferences 2021](#)

Previous Lectures

[MATLAB Fourier SquareWave](#)

[Lectures3_4Harmonics L6](#) [Lecture3 5 1 Fourier L07](#)

[Ch3 FourierSeries&TLH Ch8 4](#)

[Chapter3 FWRS Example](#)