Unit 5: Fourier Series

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This chapter launches our Introduction to Fourier Transforms with a look at Wave Analysis and Trigonometric Fourier Series. We will then go on to consider the Exponential Fourier Series and its Applications.

The material in this chapter is based on Chapter 7 (Starting at <u>Section 7.8</u>) of [<u>Karris, 2012</u>] from the Required Reading List. Some clarificattion was needed and I used <u>Chapter 4</u> of [<u>Boulet, 2006</u>] fwhich unfortunately is not longer available from the library.

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In this section of the course we will cover:

- Unit 5.1: Fourier Analysis
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- Unit 5.3: Computing Line Spectra
- Unit 5.4: Applications of Line Spectra

References

[Bou06] Benoit Boulet. Fundamentals of signals and systems. Da Vinci Engineering Press, Hingham, Mass., 2006. ISBN 1584503815. Available as an eBook. URL: https://ebookcentral.proquest.com/lib/swansea-ebooks/detail.action?docID=3135971.

[Kar12] Steven T. Karris. Signals and systems with MATLAB computing and Simulink modeling. Orchard Publishing, Fremont, CA., 2012. ISBN 9781934404232. Library call number: TK5102.9 K37 2012. URL: https://ebookcentral.proquest.com/lib/swansea-ebooks/reader.action?docID=3384197.

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