



Kunnskap for en bedre verden

TMA4130 MATEMATIKK 4N

Lecture 17: Fourier Analysis: Fourier Series

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Important

If you develop respiratory symptoms, please stay home!

Plan for today

1. Example for a system of ODEs (as requested two weeks ago, during Lecture 12)
2. Repetition: Trigonometric Functions
3. Fourier Series

Repetition: Trigonometric Functions

References

The material of this lecture was based on Chapter 11.1 of the book

Advanced Mathematical Engineering by Erwin Kreyszig (John Wiley & Sons, 10th edition, 2011).

Moreover, we recommend the lecture notes by Morten Nome (in Norwegian), who taught the 2019 edition of this course. You can Morten's lecture notes on Fourier series here:

<https://www.math.ntnu.no/emner/TMA4125/2019v/notater/02-fourierrekker.pdf>

Next lectures

- ▶ We continue with Fourier Series