Study Now

LaTeXwebinar

Benjamin Rotendahl — Benjamin@Rotendahl.dk

November 5, 2023

Contents

1 Introduktion til LaTeX

This document is as a *cheat sheet*. It covers how to setup a LaTeX document and showcases the most common LaTeX commands and functions. You have both the pdf and source code such that you can add other cool commands you find on your journey. Vil du se en sej figur, så kig i section 3.2

We have that a partial derivative is given by

$$\frac{\partial f}{\partial x} = 4x + 4y \tag{1}$$

$$\frac{\partial f}{\partial y} = 6y + 4x \tag{2}$$

2 Introduction

3 LaTeX background

Before diving into the syntax of LaTeX you should know a bit about the process of writing LaTeX documents. LaTeX is a typesetting program and language. The main advantage of LaTeX is its ability to typeset math, code and other scientific/technical figures. LaTeX in an extension of TeX, which released by Donald Knuth in the year 1981.

3.1 From source code to PDF

LaTeX is not a word processor, but a language and compiler which given a file containing source code, written in an *editor*, creates a PDF. as mentiond in section 3.1

An editor for local use, could be *Visual studio code*[**?**], it can be used to write any programming/-markup language. Support for languages comes through packages that extends its functionality, there exists packages for most languages such as python, javascript and LaTeX[**?**].

After the editor has saved the source code, it must be passed to the compiler. This can be setup to happen automatically on save. There are different versions of the compiler, they differ in the amount of packages and features they come with. "The latex project TeX"[**?**] has links to various distributions for the most common operating systems. With an editor and compiler installed you are ready to write LaTeX. The processes is illustrated in figure 1.

3.2 Fra kildekode til PDF

4 Matematik i LaTeX

After the editor has saved the source code, it must be passed to the compiler. This can be setup to happen automatically on save. There are different versions of the compiler, they differ in the amount of packages and features they come with. "The latex project TeX"[**?**] has links to various distributions for the most common operating systems. With an editor and compiler installed you are ready to write LaTeX.

Der er mange cirkelkonstanter den bedste er $\pi = 2 \cdot \tau$ de er seje givet et vilkårligt x som er mindre end $x < n$ så kanm vi.

$$\pi = \frac{1}{2}\tau$$

Tau er altså bedre end pi sagde min forlæser se bare på ligning 3

$$\pi = \frac{1}{2}\tau \tag{3}$$

$$2\pi = \tau$$

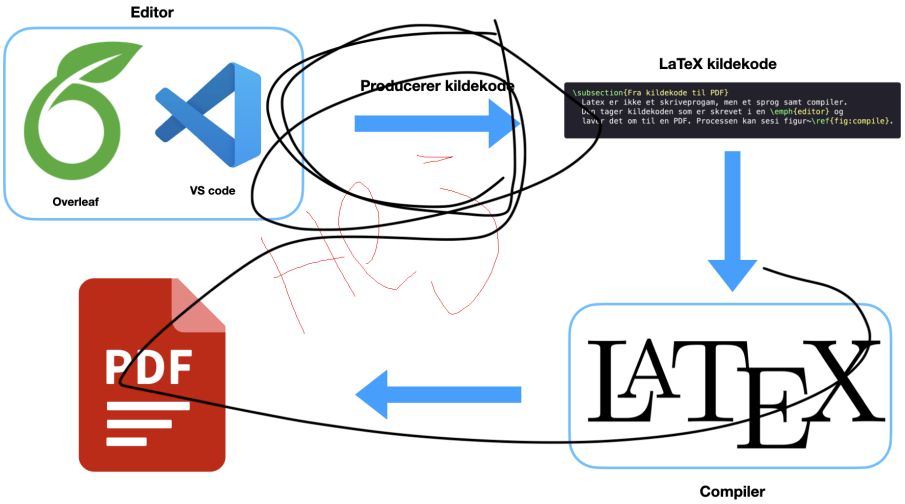

Figure 1: The process of compiling LaTeX source code to PDF

hej med jer!

$$f(x,y) = 2x^2 + 3y^2 + 4xy$$
$$\frac{\partial f}{\partial x} = 4x + 4y$$
$$\frac{\partial f}{\partial y} = 6y + 4x$$

Der er mange cirkelkonstanter den bedste er $\pi = 2 \cdot \tau$ de er seje givet et vilkårligt x som er mindre end $x < n$ så kanm vi. Det er en normalfordeling givet ved

$$f(x_1, x_2, \ldots, x_n) = \int_{i=0}^{n} x_i \, dx$$

4.1 Figure

Vi skal have noget grafik!

Der er mange cirkelkonstanteor den bedste er $\pi = 2 \cdot \tau$ de er seje givet et vilkårligt x som er mindre end $x < n$ så kanm vio. as shown in[**?**]

Navn	Studie	Semester
Benjamin	Datalogi	3
Mads	Historie	5
Ida	Biologi	6

Table 1: En tabel med studerende

counts	2833	5571	8282	11240	14000	16765	13722	11104	8290	5446	2747
percentage	2	5	8	11	14	16	13	11	8	5	2

Table 2: En auto tabel

En auto tabel: