Introduction to LaTeX

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1   Introduction

LaTeX is a high-quality typesetting system; it includes features designed for the production of technical and scientific documentation. LaTeX is the de facto stander for the communication and publication of scientific documents.

1.1   Background

LaTeX uses plain text as input and produces formated documents as output. It is widely used in academia for the communication of scientific ideas in the form of articles, books , theses and presentations.

2   Equations

a. $E = mc^2$
b. $x = (-b \pm \sqrt{(b^2 - 4ac)})/(2a)$
c. $\int_0^\pi \sin(x) = 2$
d. $\sum_{n=1}^\infty 1/n^2 = \pi^2/6$
e.

$$\lim_{x \to 0} \frac{\sin x}{x} = 1$$

f. $\begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}$

g. $\vec{A} \cdot \vec{B} = |A||B| \cos\theta$