Basic Physics for electrical engineering

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Abstract

This file contains a small summary of the contents of the `Physik für Elektrotechnik` course at the University of Rostock. Might include unnecessary commentary and will not be peer reviewed. Written in TEX with reference to Prof. Hage (whose course i attended in 2021/22).

Contents

List of Figures

List of Tables

Chapter 0

Units and Equations

Units and Unit-Prefixes

There exists a small set of SI-Units, which together make up all other known physical units. SI itself refers to the french *Système international d'unites*, which simply means **International System for units**. A unit itself is a way to measure a specific amount of a physically described perceived part of our life (dimensions like time, lengths/space, temperature, mass, amounts, ...). Table 1 provides an overview.

Dimension	SI-unit (symbol)	unit	unit (symbol)
time	t	second	s
length	l	metre	m
mass	m	gramm	g
current (electrical)	I	Ampere	A
temperature (thermodynamic)	T	Kelvin	K
amount of substance	n	mol	mol
light's strength	I_v	second	s

Table 1: List of the known SI-Units.