

This is a handbook about  $\text{\TeX}$ , a new typesetting system intended for the creation of beautiful books—and especially for books that contain a lot of mathematics. By preparing a manuscript in  $\text{\TeX}$  format, you will be telling a computer exactly how the manuscript is to be transformed into pages whose typographic quality is comparable to that of the world’s finest printers; yet you won’t need to do much more work than would be involved if you were simply typing the manuscript on an ordinary typewriter. In fact, your total work will probably be significantly less, if you consider the time it ordinarily takes to revise a typewritten manuscript, since computer text files are so easy to change and to reprocess.

This manual is intended for people who have never used  $\text{\TeX}$  before, as well as for experienced  $\text{\TeX}$  hackers. In other words, it’s supposed to be a panacea that satisfies everybody, at the risk of satisfying nobody. Everything you need to know about  $\text{\TeX}$  is explained here somewhere, and so are a lot of things that most users don’t care about. If you are preparing a simple manuscript, you won’t need to learn much about  $\text{\TeX}$  at all; on the other hand, some things that go into the printing of technical books are inherently difficult, and if you wish to achieve more complex effects you will want to penetrate some of  $\text{\TeX}$ ’s darker corners.