

Common mostly minor LaTeX errors Adopted from MCQMC 2008 version

This is a list of common errors in LaTeX.

Quotes Did you ever get "this" instead of “this”? To get proper double quotes you need to open with two single left quotes and then close with two single right quotes. You can also close with one double quote like “this”. Some text editors turn the double quote into two right singles. Type ‘‘this’ or ‘‘this" to get “this”.

Commas in math You wanted 1,000,000 but you got 1,000,000. To make it look right put braces { and } around the commas. Put $\$1\{,\}000\{,\}000\$$ in your LaTeX source.

Math functions You got $\sin(x)$ which looks like s times i times n of x , where you should have gotten $\sin(x)$. You need $\backslash\sin$ inside your math. The same goes for \cos , \tan , \exp , \log and many others.

Subscript and superscript acronyms V_{HK} (from $V_{\backslash\mathrm{HK}}$) looks better than V_{HK} (from V_{HK}) and the effect is more pronounced with long acronyms θ_{MINLOSS} versus θ_{MINLOSS} . Also $\backslash\mathrm$ works better than $\backslash\text$ in sub/super-scripts because it does the right thing in Theorem statements.

Images Do not use compressed/lossy image formats like jpeg. You could get blurry dots in your images. It is better to convert them to PDF.

Capitalization in references If you're using BiBTeX and you're not careful you could find that even though you capitalize a word in your .bib file it gets typeset in lower case. That is because BiBTeX/LaTeX likes to put article titles in lower case even if they're capitalized. To force capitalization for proper nouns etc, use brackets. For example, using

```
title = {What {Tukey} said about {Monte Carlo}}
```

at the appropriate spot in your .bib file, would preserve capitalization.

Orders of magnitude Sometimes authors get \ll and \gg when they really want \lll and \ggg . The latter are $\backslash\ll$ and $\backslash\gg$ inside math mode. The former are just two \lt 's and two \gt 's.

Computer generated BiBTeX Google scholar and other places online generate BiBTeX entries. You still have to edit them. Although they are getting better, there are frequent errors. For instance the author list may say “and others” when there are no others. The BiBTeX may have editor names as authors, wrong years, or wrong document types (article vs proceedings vs misc etc.).

Style

In addition to LaTeX errors, there are some finer points of style. People are not unanimous about them, but lots of them seem to be good ideas. Here is a list of them from A. J. Hildebrand from University of Illinois:

<http://www.math.illinois.edu/~ajh/tex/tips-topten.html>

The list includes encouragement to switch from `eqalign` and `eqnarray` to the `amsmath` alternatives such as `align`.

Our proceedings will not use `amsthm` because Springer has their own versions of those commands.

Parentheses Hildebrand's point 5 is about the LaTeX commands `\left(` and `\right)` that automatically choose the size of parentheses for you. That saves time for the writers who otherwise have to choose among `\bigl(`, `\Bigl(`, `\biggl(`, and `\Biggl(`, with similar choices for brackets `[`, braces `{` and the right hand sides as well. Unfortunately the default choices may well leave distractingly large parentheses in your document. Sometimes it looks much better to replace those defaults with smaller ones. Other times you might want adjacent expressions to use parentheses of the same size and then change one pair. If you have not internalized the different paren sizes, then it might make sense to use the defaults and just fix the ones you don't like.

Operator name His point 9. Ordinarily that would be good advice, but please don't use many `\newcommand` in your document.