

# A TAC SAMPLER

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ABSTRACT. This is distributed as a sampler to illustrate good TAC style.

## 1. Introduction

This note includes samples of what we consider good TAC style. There are no explicit skips nor any other explicit formatting instructions in the  $\text{\LaTeX}$  code; these should be left to the journal style. For the same reason, the  $\text{\LaTeX}$  code has no explicit numbering of headings or proclamations of Theorems and so forth. However, they *are* labelled to allow logical references in the code, such as to Theorem 2.2. Moreover, TAC style uses the `hyperref` package to create links to citations like [Lamport, 1986] and to internal references like Lemma 2.1. Reference links work *only* if `\label`'s are used. All links are coloured a dark blue without boxing. Though permitted, external links are strongly deprecated because of their impermanence.

*Please note that there are additional comments in the source file `sample.tex` for this sampler that you are urged to consult. You should **also** consult the on-line author instructions on the TAC web site.*

## 2. Main results

2.1. LEMMA. *All papers must be in  $\text{\LaTeX}$ , version 2e.*

PROOF. Otherwise the editors would have to do a lot of work to prepare the paper for publication. ■

2.2. THEOREM. *The TAC style is easy to use.*

PROOF. Sectioning is the same as in  $\text{\LaTeX}$  article style; proclamations such as definitions and theorems are easily specified by macros such as `\newtheorem{thm}{Theorem}`; it is easy to use `\mathrmdef{Hom}` to define a macro `\Hom` that produces roman Hom when used in math mode. Similarly `\mathbfdef{Set}` gives **Set** in bold. ■

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We would like to thank Donald Knuth, Leslie Lamport, Kris Rose, and all the others who make high quality math typesetting possible.

2020 Mathematics Subject Classification: 00A00.

Key words and phrases: TAC, diagrams.

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2.3. THEOREM. [Lamport, 1986] *The following are equivalent*

1. *Lists are best done with listing macros such as `enumerate`;*
2. *you will never have to renumber anything if you use automatic numbering of lists and other things.*

■

2.4. REMARK. For proclaimed matter that should be set in Roman we use the `TAC` macros `\newtheoremrm{}{}`.

### 3. Further comments

- Source files should include *all* and *only* author macros that are actually used.
- Be sure to use macros for multicharacter identifiers, such as `\Hom` above.
- Be sure to distinguish between `<` and `<` and similarly between `>` and `>`. Not only does the former character look wrong as a tuple delimiter, but the spacing is completely wrong.
- For diagrams, use `Xy-pic` or `diagxy`. They can be used together since `diagxy` is built on top of `Xy-pic`. A syntax example from the `diagxy` manual is

```

 $\square$ 
\mathbf{fig}
\square>>'>'>'>->/[A'B'C'D;e'f'g'm]
\morphism(500,500)|m|/.>/<-500,-500>[B'C;h]
\efig

```

which makes a familiar diagram:

$$\begin{array}{ccc}
 A & \xrightarrow{e} & B \\
 f \downarrow & \swarrow h & \downarrow g \\
 C & \xrightarrow{m} & D
 \end{array}$$

- Although we accept most reasonable bibliographical styles, the following is the one we most strongly recommend. It results in an `[author, year]` entry in the paper, rather than uninformative numbers in brackets. It allows use of e.g. `\cite{LUG}` and the code for this article is:

\refs

\bibitem [Lamport, 1986]{LUG} L. Lamport, Latex User's Guide \&  
Reference Manual. Addison-Wesley (fifth edition), 1986.

\endrefs

## References

L. Lamport, Latex User's Guide & Reference Manual. Addison-Wesley (fifth edition), 1986.

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