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 LATEX code; these should be left to the journal style. For the same reason, the 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 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 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. ∎
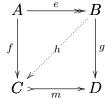

2.3. THEOREM. [Lamport, 1986] *The following are equivalent*

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. REM. 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 $\langle$ and similarly between $>$ and $\rangle$. 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

```
$$\bfig
  \square/>>`>`>` >->/[A`B`C`D;e`f`g`m]
  \morphism(500,500)|m|/.>/<-500,-500>[B`C;h]
\efig$$
```

which makes a familiar diagram:

$$
\begin{array}{ccc}
A & \overset{e}{\longrightarrow} & B \\
{\scriptstyle f}\downarrow & {\scriptstyle h} & \downarrow{\scriptstyle g} \\
C & \underset{m}{\longrightarrow} & D
\end{array}
$$

- 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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