Example document for use in the Seminar on Internetworking, autumn 2002

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This LATEXtemplate can be used for typesetting the seminar papers at the Seminar of Internetworking.
The Abstract is the last thing you write, and it should be maximum 100 words long.

1. INTRODUCTION

In this section, you give a description on the background of your study. You then give an overview of your paper. Last, you explain what you will cover in each chapter in your paper.

The introduction is about a column in a two-column article (500 words).

This document is based on ACM's instructions for producing a LATEXarticle [1] for publishing in ACM's journals.

2. SIMPLE THINGS FIRST

In this section, we give some simple examples of LATEXmark-up. Sec. 2.1 shows how to emphasizes important points and Sec. 2.2 explains how to include references. Sec. 2.3 gives examples of math formulas. Finally, 2.4 demonstrates lists.

2.1 Formatting the text

Emphasizing text is easy. It is also easy to give parameters and code examples a more `code-like appearance`.

Paragraphs are separated by an empty line in the LATEXsource code. LATEXputs extra space between sentences, which you must suppress after a period that does not end a sentence, e.g. after this acronym.

2.2 Cross-references

Cross-references to figures (Fig. 1), tables (Table I), other sections (Sec. 2.1) are easy to create.

2.3 Mathematics

In the mathematics mode, you can have subscripts such as K_{master} and superscripts like 2^x. Longer formulas may be put on a separate line:

$$\emptyset \in \emptyset \;\Rightarrow\; E \neq mc^2.$$

You may also want to number the formulas like Eqn. 1 below.

$$C = E_{K_{public}}(P) = P^e. \tag{1}$$

2.4 Make a list

There are three types of lists; bulleted, numbered, and description lists. The following subsections explain how these lists are created.

All instructions in this section are based on [1].

2.4.1 *Bulleted and numbered lists.* The lists you will use the most will have either bullets or numbers on them. The ACM style, on which the style used in this course is based, supports two different list formats; the `long` and the `short` format. The `long` format is specific for ACM while the `short` format actually is the normal LATEXformat for creating lists.

(1) This is the first item in an numbered (that is, enumerated) list using the `long` format. We use the long format, since all items extend over at least two rows. An numbered list of the `long` format is created using the `\begin{longenum}` command.

(2) You can nest list, that is, include lower-level lists in a list. The ACM style we employ can handle a nesting level of 2. The nested lists can use either list format. Item 3 below contains another list.

(3) An item containing a list

(a) One short item
(b) This is a numbered list using the short format.
(c) We should not include any lists in these items since the ACM style only supports a nesting level of 2.
(d) To create an bulleted list with the `short` format, use `\begin{itemize}` and `\end{itemize}` instead.

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(4) A bulleted list of the long format is created very much in the same way as this list; you sim-

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If there's need for another footnote, it goes here.
The bottom of the article's title page contains acknowledgment of support, the author(s) address(es), a "permission to copy" statement, and a line containing a copyright symbol (©) and a mysterious number. This is all entered with a `bottomstuff` environment; there must be no blank line after the `\begin{bottomstuff}` command.

ply exchange `\begin{longenum}` and `\end{longenum}` to `\begin{longitem}` and `\begin{longenum}`, respectively.

2.4.2 *Description lists.* Description lists are also easy to make. As with bulleted and numbered lists, there are a `short` and a `long` format for the description lists. The normal LaTeXcommand `\begin{description}` produces a list using the `long` format, while the `\begin{describe}` command is ACM specific and produces a list using the `short` format.

This is an example of a list using the `long` format:

The label. This is the description of whatever word or phrase you used as a label.

Another label. This is another description.

This is an ugly example of a list using the `short` format with labels formatted in various ways:

`A label`: Some description.
Note, that you include formatting information in the label.

Label - In this label, we put a "-" at the right side of the label space.

`A long label`: This item has the longest label in this list. We need to provide this label as an argument when creating the list, so that LaTeXcan calculate how much space has to be reserved for the labels.

2.5 Adding references

Do not forget to give pointers to the literature [2]. You can also include several references in one notation, e.g. [3; 1]. You just have to remeber not to leave any empty space between the reference keys.

2.6 The Bibliography

If you use LaTeXfrequently, you should concider collecting all your references in a BibTeX-database. On this course, we list all sources in the document itself. LaTeXwill number the sources automatically, but you have to take care of sorting your references yourself. The sources should be listed in alphabetical order a according to the last name of the first authors.

You are also resposible for including sufficient information on each refererence, and listing the information in the right order. See [4] for details on what information your bibliography should contain.

In your bibliography, you give each source a nick name. In the text, you refer to each source using that nick name e.g `\cite{nickname}`.

3. MORE COMPLEX STUFF

In this section, we start by inspecting how to include pictures and tables in the article. We then move on to how footnotes and constant strings can be included in the page footer and header, respectively. Finally, we help the reader find instructions for doing even more complex text processing.

3.1 Embedded pictures

Fig. 1 is an embedded EPS picture. Other types of pictures must be converted to EPS (embedded Postscript). Several UNIX tools can create EPS-pictures; e.g. try `xv` and `convert`. LaTeXwill typically place the picture wherever it sees suitable, so do not worry if your picture does not appear exactly where you placed it.

Give your pictures unique names, e.g. by prefixing them with your own initials.

3.2 Data served on a table

Table I presents some data in tabular form. You can influence the position of the table by giving a letter after the `begin{table*}`-command. The two most relevant when writing this paper are `t` and `b`. `t` positions the table at the top of the page, while `b` places it at the bottom of a page.

This is the format used when including tables in this course. It differs from the format enforced by ACM.

3.3 Footnotes

You can use footnotes:[1] [1] to include information that does not belong in the text itself but is relevant to the context.

3.4 The Page Header

This section explains how the page header is created. All instructions are based on [1].

The page header is generated by including the command `\markboth{}{}` in the document.

The first argument is the author's name, and it will be placed on all left-side pages.

The second argument is the title. If the title is too long, compress it by leaving out less important phrases or words, do not include abbreviated words (for instance do not write "abbr." instead of "abbreviated").

3.5 Any more complex item

The ACM style uses several environments, depending on whether you want to include a theorem, a proof, a corollary, or some other similar special paragraph. It also describes how to include program code in your paper.

If you need to insert text of some type not described in this document, refer to [1] for more information.

4. CONCLUSIONS

This section is the most important section in your paper, along with the *Abstract* and the *Introduction*. Here you present your findings, explain what makes your paper important, and speculate the maturity and importance of whatever you have been researching.

Depending on the type of your paper, you can name this section *Summary* instead.

5. FUTURE WORK

In some papers you need this section, in others you don't.

[1]This is an example of a footnote. I can e.g. include cross references as explained in Section 2.2.

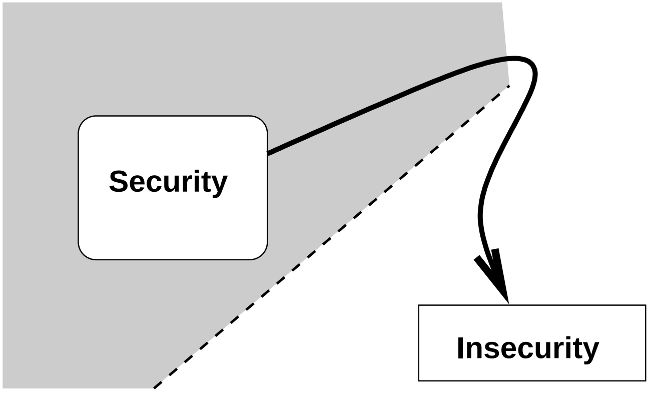

Fig. 1. An embedded EPS picture

Protocol	Year	RFC
TCP	1981	793
ISAKMP	1998	2408
Photuris	1999	2522

Table I. A table with some protocols

APPENDIX

A. SOME APPENDIX

You can include appendices in your paper.

A.1 A subsection

Some text.

A.2 Another subsection

More text.

B. ANOTHER APPENDIX

Most writers will not include one, let alone two appendices in their seminar papers, but this is how it is done.

ACKNOWLEDGMENTS

We wish to thank the Ben Buddy for providing important comments on our work.

The above is an example of a simple acknowledgement. You can place acknowledgedments after all text, including the appendices, but before the bibliography.

REFERENCES

[1] Association for Computing Machinery, Preparing Articles for the ACM Transactions with LaTeX. Online. Updated 22 October 2001, referred to 24 September 2002. URL: http://www.acm.org/pubs/submissions/latex_style/instructionsl.ps.

[2] Kopka, H. and Daly, P., A Guide to LaTeX, Third ed. Addison-Wesley, Harlow, Essex.,1999. 600 p.

[3] Korach, E., Rotem, D., and Santoro, N., Distributed algorithms for finding centers and medians in networks, *ACM Trans. Program. Lang. Syst. 6,* 3 (July), 380–401.

[4] Telecommunications Software and Multimedia Laboratory. Using and referring to sources. Online. Espoo. Updated 24 May 2002, referred to 24 September 2002. URL: http://www.tml.hut.fi/Studies/Guides/refer.html