

TITLE PAGE CONTENT:

- T1. The following should appear on the title page in point size 12 Roman font unless otherwise noted: title (point size 14, bold), author name (italics), email address (see T2), phone number, affiliation, date, where submitted (italics, no abbreviations), keywords (if requested), abstract heading (bold), abstract text, and support (footnote).
- T2. In case you are using troff, use the following troff command for putting email addresses on the title page:
`\s-2\f7hj\s-2\fR@\s+2\f7ecn.purdue.edu\fR\s+2 .`
- T3. Leave two blank lines between the title and the first author, one blank line between authors, two blank lines between the last author and the affiliation, one blank line between the affiliation and the date, one blank line between the date and the where submitted line, one blank line between the where submitted line and the keywords, two blank lines between the keywords and the abstract heading, and one blank line between the abstract heading and the abstract text.
- T4. A scaled-down example of type fonts and format is as follows:

The Title of the Paper

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February 1999

Submitted to the Nth Conference on Publications

Keywords: Keyword, keyword, keyword, and keyword.

Abstract

This starts the abstract text, which is an indented paragraph.

This research was supported by ... (this is a footnote).

INTRODUCTION:

- I1. The "Introduction" section should:
- discuss general topic area and set framework, e.g., "To build large-scale parallel systems, interconnection networks are needed."
 - clearly state the problem to be solved

- (c) clearly state the contributions of paper
 - (d) devote one or two sentences to the relationship to prior work
 - (e) overview the entire paper.
- I2. When ending the “Introduction” section with an overview of the paper, do not use the same format for each sentence. For example, instead of:
- In Section 2, ...
 - In Section 3, ...
- Use:
- In Section 2, ...
 - The ... is discussed in Section 3.
- I3. When ending the “Introduction” section with an overview of the paper, do not use the same verb for each sentence. Some suggested alternatives, to use as appropriate, are: examines, explores, describes, discusses, presents, reviews, shows, illustrates, and summarizes.
- I4. Write the “Introduction” section as if the “Abstract” did not exist; the “Introduction” should be self-contained and not require information presented in the “Abstract.”

SECTIONS:

- S1. Each section should terminate logically and smoothly, not just stop. One way to do this is to summarize the section. Another way to do this is to forecast the following section.
- S2. Sections and subsections should be numbered (e.g., “1. Introduction,” “5.5. Analysis”).
- S3. Do not include a Subsection X.1 unless a Subsection X.2 is also included.
- S4. Use two blank lines above section headings, one blank line above subsection headings, and one blank line below section and subsection headings.
- S5. Sections are labeled in bold and left justified. Three examples follow.

X. Section Title

X.1. Subsection Title

X.1.1. Subsubsection Title

- S6. In the text, refer to sections and subsections as “In Section 7, ...,” “In Subsection 7.3, ...,” and “In Subsection 7.3.1, ...” (“Subsubsection” sounds foolish).
- S7. In a phrase such as “In the next section, ...,” use a lower case “s.”
- S8. If there is a Subsection X.1, there should be no text between the Section X heading and the Subsection X.1 heading. If appropriate, Subsection X.1 can have a title indicating it contains introductory material for the section, such as “Overview.” The same is true for between Subsection X.1 and Subsection X.1.1 headings, etc.

FIGURES:

- F1. Figures should be numbered consecutively in the paper with integers starting at 1.
- F2. Figure *i* should be the *i*-th figure that is referred to in the text.
- F3. Figures should be centered horizontally on the page, or centered horizontally within the column if a two column format is being used.
- F4. A figure caption should be single spaced, left justified, and located under the figure to which it refers.
- F5. For a caption use the following format with “Figure #:” in bold font:
Figure 1: Phrase(s) describing figure. Multiple-line captions are aligned vertically with one another starting with the first word after “Figure #:.”
- F6. Label sub-figures with lower case letters, e.g., “a,” “b,”. Center the label below the

sub-figure. Do not use a separate caption for each sub-figure. Use the following format instead.

Figure 2: Results of simulation studies: (a) experiments with Cholesky approximation, and (b) experiments with Barnes approximation.

- F7. Put figures in the text, not at the end of the paper.
- F8. Use one blank line above a figure, one blank line between the figure and the figure caption, and one blank line below the figure caption.
- F9. In text, when referring to the figure with number X, use "Figure X." When using a phrase like "in the figure," use a lower case "f."
- F10. The capitalization of a word used as a label in a figure should be the same as when that word is used in the text, e.g., a figure label would be "interconnection network" not "Interconnection Network."

TABLES:

- T1. For tables, follow the same rules as for figures.

NUMBERED EQUATIONS:

- E1. Equation numbers, contained in parentheses, are specified right-justified on the same line as the equation.
- E2. Equations should be numbered consecutively in the paper with integers starting at 1.
- E3. In text, when referring to the equation with number X, use "Equation X." When using a phrase like "in the equation," use a lower case "e."

ACKNOWLEDGMENTS:

- A1. Place the acknowledgments section before the references section.
- A2. Use one blank line before the acknowledgment section.
- A3. Use the following format with the word "Acknowledgments" in italics and left justified:
Acknowledgments: We thank ...
- A4. Use the preferred spelling for the word "Acknowledgment," i.e., do not put an "e" between the "g" and the "m."
- A5. If a journal paper contains results that also appeared in a conference or workshop paper, this should be indicated in the acknowledgments.
- A6. Example acknowledgment;

Acknowledgments: The authors thank M. Maheswaran and J. M. Siegel for their valuable comments. A preliminary version of portions of this material was presented at the *4th Heterogeneous Computing Workshop*.

REFERENCES:

- R1. At most 1/3 of the references should be to papers whose coauthors overlap with the coauthors of the paper being written. Letting X be the number of papers coauthored by any coauthor of the paper being written and Y be the total number of references, handwrite at the end of the final draft of the paper the ratio X/Y for your advisor's information.
- R2. Use two blank lines before the references section heading and one blank line after the

- references section heading.
- R3. The references section heading is not numbered.
- R4. The references section is labeled in bold and left justified as follows:

References

- R5. When using references in text use the following “author-date” format:
Let YY be the last two digits of the year.
Let XXX be the first three letters of the author’s last name (only first letter capitalized) for a single author.
Let XXX be the first two letters of the first author’s last name and the first letter of the second author’s last name (both first initials capitalized) for multiple authors.
Then the format is [XXYY].
- R6. If the official author guidelines for a particular paper demand that references be numbered instead of being put in the author-date format (i.e., [1], [2] instead of [DaL99], [SaG97]), convert into the numbered format in the final version only. Do not convert to numbered references without the approval of your advisor. Keep a complete final version with the author-date references format.
- R7. Use the following reference format if space is not an issue:
- Journal Article -
[NaS90] W. G. Nation and H. J. Siegel, “Disjoint path properties of the data manipulator network family,” *Journal of Parallel and Distributed Computing*, Vol. 9, No. 4, Aug. 1990, pp. 419-423.
- Journal Article in a special issue -
[NiS91] M. A. Nichols, H. J. Siegel, H. G. Dietz, R. W. Quong, and W. G. Nation, “Eliminating memory fragmentation within partitionable SIMD/SPMD machines,” *IEEE Transactions on Parallel and Distributed Systems*, Special Issue on Parallel Languages and Compilers, Vol. 3, No. 6, July 1991, pp. 290-303.
- Conference Paper -
[MaW98] M. Maheswaran, K. J. Webb, and H. J. Siegel, “Reducing the synchronization overhead in parallel nonsymmetric Krylov algorithms on MIMD machines,” *International Conference on Parallel Processing (ICPP '98)*, Aug. 1998, pp. 405-413.
- Book -
[Sie90] H. J. Siegel, *Interconnection Networks for Large-Scale Parallel Processing: Theory and Case Studies, Second Edition*, McGraw-Hill, New York, NY, 1990.
- Book Chapter -
[SiS87] H. J. Siegel, T. Schwederski, J. T. Kuehn, and N. J. Davis IV, “An overview of the PASM parallel processing system,” in *Computer Architecture*, D. D. Gajski, V. M. Milutinovic, H. J. Siegel, and B. P. Furht, eds., IEEE Computer Society Press, Washington, DC, 1987, pp. 387-407.
- Technical Report from a School -
[SaS93] G. Saghi, H. J. Siegel, and J. A. B. Fortes, *On a Quantitative Model of Dynamic System Reconfiguration Due to a Fault*, Technical Report TR-EE 93-18, School of Electrical Engineering, Purdue University, Apr. 1993, 48 pp.
- Technical Report from a Company -
[Sta91] D. Stark, *Analysis of Power Supply Networks in VLSI Circuits*, Technical Report WRL-TR-91.3, Western Research Laboratory, Compaq, Palo Alto, CA, Apr. 1991, 153 pp.
- Thesis -
[Kul96] M. B. Kulaczewski, *Parallel Implementations of a Visual Tracking Algorithm, and Dynamic Partitioning for a Mixed-mode Programming Language*, Master’s Thesis, School of Electrical and Computer Engineering, Purdue University,

1996.

System Documentation -

[Mas92] MasPar Computer Corporation, *MasPar System Overview*, Part Number 9300-0100, Rev. A6, Sunnyvale, CA, Nov. 1992.

Use the following format if space is an issue:

Journal Article -

[NaS90] W. G. Nation and H. J. Siegel, "Disjoint path properties of the data manipulator network family," *J. Parallel and Distributed Computing*, Vol. 9, Aug. 1990, pp. 419-423.

Journal Article in a special issue -

[NiS91] M. A. Nichols, H. J. Siegel, H. G. Dietz, R. W. Quong, and W. G. Nation, "Eliminating memory fragmentation within partitionable SIMD/SPMD machines," *IEEE Trans. Parallel and Distributed Systems*, Vol. 3, No. 6, July 1991, pp. 290-303.

Conference Paper -

[MaW98] M. Maheswaran, K. J. Webb, and H. J. Siegel, "Reducing the synchronization overhead in parallel nonsymmetric Krylov algorithms on MIMD machines," *Int'l Conf. Parallel Processing (ICPP '98)*, Aug. 1998, pp. 405-413.

Book - same as above

Book Chapter - same as above

Technical Report from a School -

[SaS93] G. Saghi, H. J. Siegel, and J. A. B. Fortes, *On a Quantitative Model of Dynamic System Reconfiguration Due to a Fault*, TR-EE 93-18, EE School, Purdue, Apr. 1993, 48 pp.

Technical Report from a Company -

[Sta91] D. Stark, *Analysis of Power Supply Networks in VLSI Circuits*, WRL-TR-91.3, WRL, Compaq, Palo Alto, CA, Apr. 1991, 153 pp.

Thesis -

[Kul96] M. B. Kulaczewski, *Parallel Implementations of a Visual Tracking Algorithm, and Dynamic Partitioning for a Mixed-mode Programming Language*, Master's Thesis, ECE School, Purdue, 1996.

System Documentation - same as above

- R8. If a referenced document has not yet appeared, state "to appear" in place of the page numbers.
- R9. Use three-letter abbreviations for the names of months for all months except May, June, and July (e.g., "Jan.").
- R10. Represent ordinal numbers by symbols instead of names, e.g., write "8th IEEE ..." instead of "Eighth IEEE"
- R11. When specifying a conference or workshop abbreviation, such as *HCW '99*, be sure to have a space between the "W" and the apostrophe.
- R12. Use the notation "[NaS90, NiS91]" instead of "[NaS90], [NiS91]."
- R13. Do not begin a sentence with a reference. For example, instead of: "[NaS90] uses a formal proof to..." state: "In [NaS90], a formal proof is used to...."
- R14. Try to reference papers published in JPDC if at all related.
- R15. Make sure all references mentioned in the text are in the reference list, and vice versa.
- R16. Try to reference your own papers if at all possible; it helps to establish your credibility.
- R17. If the same material (by the same authors) appears in more than one of a journal paper, conference paper, and/or TR, the first choice to reference is the journal, second conference, third TR.
- R18. Use the reference database for all references. Never enter incomplete information for a reference into the database.

- R19. When using the author-date notation for references, order references case-insensitive alphabetically by the keys. In the final version of a paper in which references are numbered, order the references by the authors' last names.
- R20. A reference to an Internet location should be made by including the URL of the Internet location as the last item in the citation of a reference, e.g.,
[Sta91] D. Stark, *Analysis of Power Supply Networks in VLSI Circuits*, WRL-TR-91.3, WRL, Compaq, Palo Alto, CA, Apr. 1991, 153 pp., <http://www.research.digital.com/wrl/techreports/abstracts/91.3.html>.
- R21. Be aware of related work done by members of the program committee and editorial board for conference and journal submissions, respectively.

GENERAL:

- G1. Use the "Introduction" and "Conclusion" sections to *sell* your paper.
- G2. When describing experiments, include all information on parameters and procedures so that another person reading the description would be able to reproduce the experiments.
- G3. Make it clear to the reader what the focus and contribution of the paper are and why others would want to read this paper (i.e., why it should be accepted for publication).
- G4. Indicate the contributions of the paper at the end of the abstract, the introduction, and the conclusion.
- G5. Write the body of the paper as if the abstract is not there.
- G6. Include a section that compares your work to the related work in the literature - this could go at the beginning if the reader will understand enough to comprehend the comparison, or can wait until the end if the reader needs the details in the paper to understand the contrast. Do not insult the work of others.
- G7. Define terminology, variables, etc., *before* they are used.
- G8. Run a spell-checking program (e.g., ispell) on your file.
- G9. Avoid using one sentence paragraphs.
- G10. Avoid paragraphs longer than half of a page.
- G11. Do not use a lower case "L" in mathematical notation. It looks too much like the numeral "1."
- G12. Use variables that intuitively match the entities that the variables represent, e.g., use *m* machines, not *r* machines.

TEXT FORMAT:

- X1. In general, plan to type the paper yourself, using troff, LaTeX, or MS Word on a machine you can readily access in the ECE building. Include some figures and tables. Check with your advisor for the word processor to use for a given paper.
- X2. Print papers point size 12 on vertical spacing 18.
- X3. Assuming 12 point on 18 vertical spacing, conference papers should be about 15 to 20 pages of text and journal papers should be about 20 to 25 pages of text (not including abstract page, figures, tables, and references).
- X4. Use text previewers to check formatting to avoid wasting laser pages.
- X5. Use italics for words you want to emphasize.
- X6. Italicize single letter variable names, e.g., "PE *N*-1" and "*p*₅."
- X7. Use an underline for a term being defined.
- X8. Each individual word in a term should be underlined, not the entire term and intermediate spaces, e.g., use heterogeneous computing, not heterogeneous computing.
- X9. In text use X/Y for division so inter-line spacing can remain uniform. In an equation on a separate line, use X/Y or $\frac{X}{Y}$.

- X10. Use one space on each side of an equality or inequality symbol. That is, an equation should appear as $N < 8$, *not* $N < 8$.

WORDING:

- W1. Do not use pronouns.
W2. Avoid using “In this paper” or “This paper....”
W3. The phrase “Note that” is usually unneeded.
W4. The phrase “in order,” as in “...do this [in order] to accomplish...,” is usually unneeded.
W5. Avoid using the same verb in adjacent sentences.
W6. Avoid non-technical phrases, e.g., instead of “the probability sky rockets” use “the probability increases rapidly.”
W7. Use “That is,” instead of “In other words.”
W8. Use “alternatively,” instead of “on the other hand.”
W9. Do not use contractions in text, e.g., use “do not” instead of “don’t.”
W10. Write “cannot” as one word and not two.
W11. Only use “since” when referring to an interval of time (e.g., since yesterday); if “since” is being used in the same sense as “because,” use “because.”
W12. Never end a sentence with a preposition.
W13. Use “between” when distinguishing two objects and “among” for three or more objects. For example, “The difference between SIMD and MIMD is ...” and “...distributed among four processors.”
W14. In a context such as “there are fifteen working processors” the number should be written out (“fifteen”) if less than 16; of course, for “ $N = 8$ ” the eight should be the numeral 8.
W15. If “which” is being used in a context where “that” is also appropriate, then use “that” unless it is physically set off by one or two commas. Examples of this rule are:
 “I read the paper, which was written by Jones, last weekend.”
 “Last weekend, I read the paper that was written by Jones.”
W16. The use of “etc.” in an “e.g.” (for example) list such as “... partitionable interconnection networks, e.g., PM2I, Illiac, Cube, etc., ...,” is redundant.
W17. Use “broadcast” instead of “broadcasted” for the past tense of broadcast.
W18. The term “real time” is two words when used as a noun. It is hyphenated when used as a compound adjective, e.g., “real-time monitoring.”
W19. The term “run time” is two words when used as a noun. It is hyphenated as a compound adjective.
W20. The word “widespread” is one word (i.e., it is not hyphenated).
W21. The word “coauthor” is one word (i.e., it is not hyphenated).
W22. The word “overview” is a noun, not a verb.
W23. Do not use the word “thing,” be more specific.

PUNCTUATION:

- P1. For quotes, use “ and ” not ".
P2. In a list of three or more elements, such as “A, B, and C,” be sure to put a comma after the item before “and.”
P3. In a list of three or more elements, such as “A, B, or C,” be sure to put a comma after the item before “or.”
P4. Periods and commas go inside a closing quotation mark.
P5. Never have a comma followed by an open parenthesis.
P6. Follow “i.e.” (that is) and “e.g.” (for example) by commas; for example: “one of my

- students, e.g., Mark, will”
- P7. “Nat'l” and “Int'l” are contractions and do not end with periods.

HYPHENATION:

- H1. Hyphenate compound adjectives, e.g., “the 30-processor prototype.”
- H2. The term “trade-off” is two hyphenated words.
- H3. Check automatic word hyphenation done by troff. Words are sometimes hyphenated incorrectly, e.g., “multis-tage.” The .hw command at the beginning of a troff source file can be used to force correct hyphenation, e.g., the commands “.hw multi-stage” and “.hw mul-tistage” will set up the correct hyphenation for “multistage.”
- H4. Use the following format for “*i*-th,” e.g., “The *i*-th element... .”
- H5. Use a minus sign instead of a hyphen in arithmetic expressions, e.g., $N-1$. Use a hyphen instead of a minus sign to hyphenate words, e.g., trade-offs.

BIOGRAPHIES

- B1. When including biographies on papers with multiple authors, be sure each biography includes similar information and is structured in a consistent fashion. For example, for each author list the degrees with the dates received, the number of publications, and the current areas of research, in that order.

CHECKING:

- C1. Have another student read your paper to make sure it is understandable to someone other than yourself.
- (a) This by itself qualifies the other student to be acknowledged; do not put him or her as a coauthor for this.
 - (b) This should be done before your advisor reads the paper.
 - (c) You should return the favor, i.e., read a paper for that other student.
- C2. Read your paper from beginning to end as if you were a referee trying to find reasons to reject the paper - look for weaknesses in the paper and correct them.