



Writing a Conference Research Paper

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Components

- Title, affiliations, authors' information
- Abstract
- Introduction and motivation
- Related work
- Your stuff
 - Explanation of simulation setup, experimental network, etc. and parameters used, performance metrics utilized, etc.
 - Performance results
- Conclusions and future work
- Acknowledgments
- References

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Title, affiliations, authors' information

- Title of the paper
- Name of the author(s)
- Affiliation
- Email, telephone numbers
- Corresponding author indication
- Supporting agency indication

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Abstract

- Abstract summarizes the major aspects of the paper
- One paragraph long with:
 - Purpose of the paper
 - General description of the area the paper is related to, description of the problem to be investigated, problem with current approaches and current situation
 - Methods used
 - Your solution, your approach to solve the current problem
 - What and why is novel
 - Major results
 - Conclusions
- Contains no references, acronyms, abbreviations, figures, images
- Clear and focused

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Introduction and motivation

- A story!!!
- Starts in a general context and describes the scenario or area that the paper is related to
- The story is progressively narrowed down describing the problems of the current situation, approaches, etc.
- The story finally describes the problem at hand, i.e., the problem that you are solving in this paper
 - Problem statement or problem definition
- Your story must be VERY compelling
 - Must convince the reader that your area and problem are VERY important otherwise he/she will NOT read your paper further
 - What is novel about your approach
- End with a paragraph with the paper organization
- An expanded, more specific version of the abstract

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Related work

- In this part of your paper, you must include briefs descriptions of other researchers' approaches in solving the problem at hand
 - Must include clear statement with disadvantages
 - Why this author's approach does not solve the problem at hand?
 - You can include a brief statement differentiating you work from the others
 - Why is your approach different?
 - How does your approach solve the problem at hand?

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Your stuff

- Here you need to describe your work
 - Approach taken (methodology)
 - Simulation, analytical, experimental work
 - Tools and devices used
 - Other approaches to compare yours with
 - Network topology
 - Traffic sources
 - Link speeds
 - Buffer sizes
 - Etc
 - Performance metrics
 - Metrics used to evaluate the performance of your approach
 - To show that your work actually solves the problem and performs better than the others
- Must have enough detail for interested readers to repeat the experiments and reproduce the results

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Performance comparison

- Your results and analysis
 - Results match others?
 - Logical results?
- Use figures and tables
- Do not repeat in words what anyone can read from the graphs
 - Provide insights
 - Explain WHY?

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Conclusions and further research

- Conclude your paper
 - Summary of the topic, the problem, how it was solved, and the main results/conclusions
- Point out good, interesting and important areas that need to be further researched

References

- Use standard reference format
- Be CONSISTENT!!!
 - Use the SAME structure in ALL the references

Acknowledgment

- Recognize the work of others that directly made contributions
- Recognize funding agencies that supported your work

Others

- The abstract, introduction and motivation and conclusion are the MOST important parts of your paper
 - If they are not well-written your paper will NEVER be accepted in a good conference
 - Reviewers first look at these parts and keep on reading ONLY if they are good
- Check for completeness
 - Is everything there?
- Check the organization
 - Topic and paragraph sentences
 - All sections?
- Check for consistency
 - Ex. Objectives for experiments should match objectives for paper in intro

Others

- Check for cohesion
 - Does every sentence in a paragraph relate to the topic sentence?
- References to figures
 - Make sure every figure is discussed in text and the caption is a “bumper sticker” of the take-home point
- References
 - Are they in the right place?
- Check flow and grammar

Others

- Redundant publication
- Fraud
 - Plagiarism, i.e. copying data, ideas or work by others
 - Fabrication, i.e. inventing or faking results
 - Falsification, i.e. manipulating results
- Two templates are provided
 - MS word
 - Latex (I encourage you to use it, specially if you plan on doing research in Networks under my supervision!)
 - It looks awkward the first time you look at it but it is very convenient and solid
 - Not only for papers, thesis, dissertations, etc.

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Sections and paragraphs

- Every section has a topic paragraph to summarize main points and provide a roadmap of the details that will follow
 - Every subsection too!
- The topic paragraph should be an abstract/summary of the section or subsection
 - What the main point is
 - What the layout of the subsections or arguments are
- Each paragraph must have a topic sentence, which must be the first sentence in the paragraph

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