

## Writing Technical Abstracts

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## Contents of a Technical Paper

- Title, Author(s)
- **Abstract** – (100-200 words)
- Introduction
- Related work
- Body – Problem, Approach, Results
- Conclusions, summary, future work
- Acknowledgements
- References
- Appendix

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## The Abstract

- An abstract is a stand-alone statement that briefly conveys the essential information of a paper or talk. It presents the:
  - Objectives
  - Methods
  - Results
  - Conclusions of the research project

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## Style of an Abstract

- Concise and clear
- Sentence structure should be very direct – not the same as a paper
- Think of a Journalist writing a story about your paper in *NY Science Times*
- Must be self contained as the abstract often is read or presented in the absence of the full paper

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## Example

*This study's objective was to determine the strangeness measurements for red, green, and blue quarks. The Britt-Cushman method for quark analysis exploded a quarkstream in a He gas cloud. Results indicate that both red and green quarks had a strangeness that differed by less than  $0.453 \times 10^{-17}$  Zebes/m<sup>2</sup> for all measurements. Blue quarks remained immeasurable, since their particle traces bent into 7-tuple space. This study's conclusions indicate that red and green quarks can be used interchangeably in all He stream applications, and further studies must be done to measure the strangeness of blue quarks.*

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## How to Write it

- Highlight the main objective and conclusions
- Highlight results from discussion sections
- Organize so that the first sentence describes the new information in the paper rather than the general topic
- Abstract only contains essential information

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## What to Avoid

- Avoid general motivation in the abstract. You do not have to justify the importance of the Internet or explain what QoS is.
- Avoid equations and math. Exceptions: Your paper proposes  $E = m c^2$ .
- The abstract must **not** contain references, as it may be used without the main article. It is acceptable, although not common, to identify work by author, abbreviation (e.g., Knuth's work)
- Avoid use of "in this paper" in the abstract. What other paper would you be talking about here?

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## What to include

- Since the abstract will be used by search engines, be sure that terms that identify your work are found there. In particular, the name of any protocol or system developed and the general area should be contained in the abstract.
- Interest the reader – entice them to read your full paper (and maybe cite you later)
- Use "in this paper" or "in the paper" as a journalistic style. Alternatively use "investigation" or "research"

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## Links

- <http://www.rpi.edu/web/writingcenter/abstracts.html>
- <http://www.cs.columbia.edu/~hgs/etc/writing-style.html>

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