

A Brief Writing Guide

Space Architecture Technical Committee | March 2021

Purpose of this Guide

This guide is meant to act as a quick resource / starting point for writing good abstracts and papers that cover original works. Review papers call for a different structure.

General Themes

1. Be concise. Make every sentence matter. Use context and figures to your advantage.
2. Keep your sentences short. Keep multi-clause sentences and parentheticals to a minimum.
3. Make your ideas clear. Do not assume the reader has special knowledge.
4. Conduct a literature search of similar prior work. Review the SpaceArchitect.org Bibliography as a first step. If you show that your stands on the shoulder of giants, it will stand taller than it would alone.

The Abstract

The purpose of your abstract is to capture the purpose of your paper. It is a microcosm (or, the SparkNotes) of your paper. The following is a standard template for a good abstract:

1. The Topic / Problem Statement (1-2 sentences): The first sentence is an extraction of the entire paper. Introduce the topic, quickly homing in from a broad category, to the specific realm.
2. Current State of Topic / Field (2-3 sentences): What is the most relevant work done on this topic? What **gap** have you found and attempted to fill?
3. Your Methods / Approach (2-3 sentences): How did you go about filling this gap? (what data did you collect? / what type of analysis did you perform? / what did you build?)
4. Your Results / Findings (1-3 sentences): What did you come up with? What can your thing do?
5. Significance / Next Steps (1-3 sentences): Expand on your results. How can this work be applied? Or what additional work needs to be done for it to be useful?

By reading this brief summary, the reader should know whether or not your paper is of interest to them.

The Paper

The purpose of your paper is to bring your reader up to speed on your topic, and to describe your work.

1. Abstract: (above).
2. Introduction: Establish the current state of your topic (existing work), build a case for new work needed (a specific problem that has not been adequately addressed), and define the scope of your work.
3. Methods / Approach: Provide reader with enough details on how you did your work (materials and procedures) that they can reproduce these conditions and attempt to replicate your results.
4. Results & Findings: Present the data and the **analysis** of that data. Discuss your findings. What patterns emerged? What are their implications? What more needs to be uncovered (next steps)?
5. Conclusion: No new information. Summarize the introduction (context), methods, results, and next steps / applications.

References: make sure you supply the appropriate references and credits to back any claims that are not directly pulled from your results. **Using the APA Manual of Style is highly recommended.**