

Overview

A paper abstract is very different than a conference abstract. Paper abstracts should be short, and describe the problem, explain the basic methods developed, and discuss the main one or two conclusions. Each journal will have a slightly different format and length for abstracts. As with other sections, but primarily with the abstract, look at other papers in the journal about related problems to get an idea of the layout of the abstract.

Abstract format

An Abstract should have approximately the following format (one sentence each):

- What is the problem that this paper addresses?
- Why is this an important problem to solve?
- Why are current approaches (if they exist) lacking in solving this problem?
- In this work, we develop a [type of] approach to address this deficiencies ...
- We show that, in simulations, our approach improves on the state-of-the-art methods with respect to a specific metric of the quality of results...
- In real data (name the data), we show that our approach is able to...
- What are the domain-specific implications of these results, derived uniquely from your new approach? Our results highlight specific mechanisms or structure in these types of data...

Avoid using words like ‘novel’ ‘original’, or ‘revolutionary’: a simple description of what you did suffices, and superlatives will generally turn off reviewers. This is not the place to compare specific details of novelty to other related methods, including your previous work on the subject, but instead to describe the main problems addressed by this model and the biological (domain-specific) results it enables.

Most journals have word or character limits in the abstract. Specific journals will split up the abstract into, e.g., Motivation, Results, Implementation. Other journals will prohibit citations (this is generally the case) or acronyms (this is more rare) in the abstract. Read through the instructions for authors on the journal website, and use related work in that journal as a template from which you may structure your own abstract.

Abstract resources

- http://www.nature.com/nature/authors/gta/2c_Summary_para.pdf