

Overview

The purpose of the introduction is to motivate the work, describe why solving a particular problem is important in the larger context, describe difficulties in solving this problem, and describe related approaches that have come before this work. The introduction section often concludes with a paragraph giving a rough outline of the paper (this is almost mandatory in some types of journals, e.g., JMLR, JASA, AOAS).

One common mistake with Introductions sections: No results or conclusions should be included. We are setting the stage, making the relevance of the results clear in the larger context, but not giving away the punchline.

Tips for writing the introduction

Before writing the introduction, think hard about the general ideas that are necessary for this paper to be relevant. Each paragraph should cover one of those ideas. E.g.,

1. What is a BLURG?
2. Why is a BLURG important biologically?
3. How do we experimentally assay BLURGs? What are their limitations?
4. What types of methods exist to statistically predict BLURGs? What are their limitations?
5. What is the basic experimental design of this paper? why is this different than previous work?
6. How is this paper laid out?

The introduction is also the place to define all of the concepts used in the paper. All acronyms to domain-specific ideas should be defined here (e.g., SNPs, TFBSs, DHSs).

Introduction writing

The introduction should contain short, easy to read sentences. (Nearly) everything that is mentioned about definition, context, and existing approaches should be supported by citations.

Introduction resources

- CiteULike: Organize and gather bibliographies. Export collection of papers to .bib file. Free and on the web.
- Mendeley: Fancier way to organize and gather bibliographies. Drop PDFs into the interface and it pulls the reference. Export collection of papers to .bib file. Free (up to a point!) and on the web.
- Google Scholar: surprisingly easy to pull BibTex reference to all papers and books (find paper, hit 'cite', hit 'Export to BibTex')