

Research Paper

Description

- Length:** 6 – 10 pages
Frequency: One paper
Value: 3 points ($\sim 27\%$ overall grade)

The research paper is a more detailed exposition on the topic chosen for your conference presentation. In a conference setting, many fine details (such as precise definitions, proofs of theorems, etc.) must be cut for the sake of time and the audience's sanity. You should flesh out such details in the research paper. You might also consider discussing interesting aspects of your topic that were not germane to the central goal of your presentation. The paper must be written in LaTeX (see the course webpage for examples to help get you started). Refer to the provided rubric throughout the process to help direct your writing. You will also critique the writing of one of your peers to help improve their writing as well as your own.

Each paper should contain at least three “big ideas”, the precise meaning of which we will discuss at individual meetings. For many topics, a discussion of prerequisites (definitions, problem statements, etc.) is often a big idea in itself. Other big ideas might include detailed examples, key theorems, or interesting applications. You are, of course, required to cite any sources you use in your research.

We will have four individual meetings to discuss your paper. The first three meetings are dedicated to reviewing a rough draft of each big idea (one per meeting). By the fourth meeting, you will have received feedback on your entire paper from me and one of your peers. We will discuss this feedback at the fourth meeting and consider the structure of your paper as a whole. I will grade the final draft using the provided rubric.