Acknowledging Sources in Mathematics Papers

Unless you cite a source, you imply that all wording and results in your paper are yours. If your paper includes information taken from elsewhere, then you must acknowledge the source of the information. This document explains how to appropriately use and acknowledge sources in a mathematics paper.

Avoid using wording from sources In your paper, the writing should be your own, so try to avoid using wording from your sources. If you are writing a paper that summarizes the work of others, then use your own words to synthesize information from a combination of sources: don't rely on one source. To avoid copying wording, understand what your sources are saying, and then put them away before writing. If you must use notes, take sparse notes and avoid using wording from your sources in your notes. It's fine if your resulting explanations are not as elegant as the explanations in your sources, as long as your explanations are correct.

Occasionally, to be accurate and precise, you must present a theorem or definition using the wording that appears in your source. You do *not* need to place the theorem or definition in quotation marks. Instead, clearly state that the theorem or definition is taken from your source, and include a citation.

Even if you use no wording from a source, you must still cite the source if you present information from it.

Examples of how to cite information or wording The introduction should end with a summary of the contents of the paper; in that summary (also called a "road map," you can indicate what information comes from your sources and what information is original. Some examples follow. All examples are taken from the 2002 *Undergraduate Journal of Mathematic*s, with minor editorial modifications.

> From an introduction:
>> The result treated in this paper was proved first by Kakutani in [4]. Intuitively it states this: let f be a continuous function defined from a convex subset of an Euclidean space to a set of convex subsets of that set; then f has at least one fixed point. The sense in which f is continuous and has a fixed point is formalized in Section 2…
>>
>> —C. Chiscanu, *Fixed-Point Theorems*

> From the same paper's road map at the end of the introduction:
>> …Section 2 gives the basic definitions, and reviews a proof of Kakutani's Theorem suggested by Hongu He (private communication, June 1998). Section 3 proves a generalization, due to the author, in which the original continuity assumption is relaxed.
>>
>> —C. Chiscanu, *Fixed-Point Theorems*

> From another paper's road map at the end of the introduction:
>> In Section 2, we discuss the neoclassical, monopsony and revisionists' models characterizing economists' views on the minimum-wage controversy. In Section 3, using these models, we analyze the debate spurred by Card and Krueger [1]. In Section 4, we assess Card and Krueger's assertions. Finally, in Section 5, in a replication and extension study, we strengthen our conclusions with empirical evidence.
>>
>> —M. Fernandez, *The Minimum-Wage Controversy*

Acknowledge each source again at the point at which it is used within the body of the paper. If a section relies heavily on a particular source, you may acknowledge that source once at the beginning of the section. Indicate how closely your explanation follows the explanation in your source by using such words as "with slight modifications," "follows," and "based on."

> Now that we have in intuitive picture, we present a formal statement and proof of Menger's theorem. This proof comes from West [2, pp. 149–51]. There exist more than fifteen different proofs of Menger's theorem. West's proof, although not the shortest, is more intuitive than others. We follow it with some slight modifications.
>
> —R. Miller, *Introduction to Network Theory*

Citations should include page numbers, so readers can easily go to your sources to find more information. If you must cite a web page, include the date on which you visited the page, because web pages change.

Common Knowledge It isn't necessary to cite information that is common knowledge. If you aren't sure whether a topic is "common knowledge" for your audience, one option may be to write, "[topic] is presented in most introductory [name of field] texts; for example, see [citation]." Such a note helps readers who want to know more about the topic.

18.312 Algebraic Combinatorics
Spring 2009