

CAAM 600: Writing the CAAM Master's Thesis
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THE SEVEN KEY QUESTIONS

Whether you are writing a thesis, a PhD proposal, an abstract to submit to a conference, or a paper for publication, you must begin by thinking through the project as a whole. If you first write the answers to the Seven Key Questions listed below and then discuss them with other graduate students and your advisor, you will save time and energy.

Note: Answers may overlap. Contribution may signal importance, for example.

1. FOCUS/ CLAIM

What did you identify as work that needed to be done; what problem needed to be solved? What is your claim? Be very specific.

2. IMPORTANCE

How is your work important? Why should other mathematicians or engineers care about your incremental contribution?

3. METHOD(s)

What method(s) did you choose to address the problem? Defend your choice(s).

4. CONTEXT

How does your work fit into other work that has been done in your field? How does it compare with related research? In other words, what previous work do you build on, extend, generalize, test, improve, or apply to new circumstances? What are the key issues? (On what points do other researchers agree or disagree? Where do you stand on the issues?) The answers to these questions form the basis for your Literature Review.

5. RESULTS

What, specifically, are your findings to date? What other results do you reasonably expect? What evidence will you need to convince other mathematicians or engineers of those results?

6. UNIQUE CONTRIBUTION

What are you reporting that is NEW? You **must** differentiate your contribution(s) from those of other researchers.

7. POSSIBLE APPLICATIONS

In what ways might your work be useful, either theoretically or practically?