# Applications of Lightweight Formal Methods in Engineering Software

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#### Abstract

Boop.

# 1 Introduction/Background

Writing software is hard.

#### 2 Problem Statement

The goal of this research is to establish the role of lightweight formal methods in scientific and engineering software design.

#### 3 Literature Review

Daniel Jackson.

#### 4 Methodology

Find common programming paradigms in scientific software design and model them.

# 5 Overview of Chapters

- ullet Moment distribution
- Sparse matrices
- Finite element
- $\bullet\,$  User interface design
- $\bullet$  Mesh editing and rendering
- $\bullet\,$  Utilities for Alloy

### 6 Plan of Work

Get it all done this year.

# 7 Bibliography

Citations.

# 8 Appendices

Papers we've already written.