

Invited Speaker

The Use of Mathematics in Software Engineering

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Abstract

Logicians may want to consider the following statements:

- All Engineers use mathematics in their work.*
- Software Engineers do not use mathematics in their work.*

What should we conclude from these "axioms"?

Some would conclude that Software Engineers are not Engineers.

Others would conclude that the first statement must be incorrect and should read, "All Engineers except Software Engineers use mathematics in their work." They would argue that mathematics is irrelevant in software development.

Still others would conclude that, "Some of the people who now call themselves Software Engineers are not qualified to do so."

Although much of the mathematics developed by Computer Scientists is not very practical, this talk will argue that mathematics can and should play a central role in software engineering. It will show how classical engineering concepts can be applied in software development.