

MATHEMATICAL DEFINITIONS, FORMALLY SPEAKING

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This talk will give an introduction to my current project, which aims to write all the theorem statements and definitions of mathematics in a computer-readable form. By “computer-readable”, we mean much more than TeX or formulas in a computer algebra system. We mean that the math is expressed in terms of the rules of logic and foundations of mathematics. This project is expected eventually to encompass all branches of mathematics.

Some of the goals of the project are to

- develop formalized data that will be useful for AITP projects,
- offer a service for mathematicians to search and contribute formal definitions and statements of theorems, and
- bring the benefits of formalized mathematics to a broader community of mathematicians.