Formal Proof —— The Four-Color Theorem
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Abstract:

The proof of the four-color theorem had been a conundrum since it was proposed in 1852. For some thirty years, computer science has been working a solution to this problem: formal program proofs. In this presentation, we will introduce the formal proof of four-color theorem. First, we introduce the background material describing the original proof and the Coq formal system used. Next, the new mathematics involved in the formalization will be discussed. Finally, we will introduce the two main parts of the formal proof: reducibility and unavoidability.