

# Introduction to Conformal Field Theory

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## **Abstract**

Witten said around the turn of the century that a rather safe prediction about 21st century mathematics is that one of its main themes will be understanding quantum field theory. The first large class of quantum field theories to succumb will be conformal field theories (CFT). My lectures are intended as an introduction to (primarily rational) CFT. I will focus on the category-theoretic, K-theoretic, subfactor and vertex operator algebra approaches. My emphasis will be on their interrelations, and how they together illuminate mathematically this important class of quantum field theories.