

Pumagrass

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Speaker: Ethan Sussman
Title: What *is* a Quantum Field Theory?

Abstract

Quantum field theory has a much deserved reputation for lacking mathematical rigor. Over the years, a number of mathematicians and mathematical physicists have attempted to rehabilitate the discipline by precisely articulating its assumptions and rigorously deriving their consequences. In this talk we'll cover the earliest of these attempts, the Garding-Wightman axioms, due to the analyst Lars Garding and physicist Arthur Wightman. By the end, we'll have at least one mathematically satisfactory answer to the question "what is a quantum field theory?"