



Contribution ID: 157

Type: **not specified**

Slava Rychkov "The renaissance of axiomatic methods in quantum field theory"

Tuesday, November 4, 2025 11:00 AM (1 hour)

The textbook approach to quantum field theory is to start from the Lagrangian and then either do perturbation theory or, if the theory is strongly coupled, resort to lattice Monte Carlo simulations. Recently there has been renewed interest in developing and applying "bootstrap methods", which have different spirit. They use nonperturbatively valid "axioms" to obtain concrete numerical results about experimentally relevant strongly coupled QFTs. After a pedagogical background introduction, I will describe these bootstrap methods and some of their applications in the study of critical phenomena and scattering processes.