

Symmetries in QFT and applications

Wednesday, 7 December 2022 09:00 (1 hour)

Quantum field theory is a framework that can describe universal behavior in the low-energy region for quantum many-body systems, but solving it is often very difficult as it often becomes strongly coupled systems. One of possible approaches to such problems is to constrain the dynamics from general viewpoints instead of solving the dynamics directly. Symmetry in field theories has played a very important role from this perspective. In recent years, the notion of symmetry itself has been generalized in a remarkable manner, and such a generalization produces rigorous constraints on strongly-coupled field theories. In this talk, the generalized notion of symmetry will be explained from the basics and some of its applications will be introduced.

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