In the framework of the activities of the PhD programme in Mathematical Sciences

Vieri Mastropietro
University of Milan

will offer a PhD course on

Matematics for Statistical Physics and Quantum Field Theory

Abstract

Statistical Mechanics and Quantum Field Theory pose a number of challenging problems to modern mathematical research, and concepts like renormalization,
universality, emergence of conformal symmetry, non equilibrium require new and more powerful mathematical methods. I will provide an introduction to such problems and to some of the mathematical methods to analyze them, like non gaussian Grassmann integrals, rigorous Renormalization, the Gram-Hadamard bound, the Battle-Brydges-Federbush formula (cluster expansion), allowing a non perturbative construction of some Quantum Field Theory.

Scheduling

The course will be held via Zoom platform

from January 18 to January 29, 2021

from 10:30 to 13:30

Anyone interested not in the Unimi doctorate can write to vieri.mastropietro@unimi.it

The Zoom link will be provided directly by Prof. V. Mastropietro