

Mini-course: Constructive Quantum Field Theory on manifolds

lundi 18 mars 2024 13:30 (1 heure)

In this course, I will try to give an introduction to the nonperturbative construction of certain models of quantum field theories on manifolds. I will focus on the construction of the $P(\phi)_2$ theories on Riemann surfaces using both the Nelson bounds and the stochastic partial differential (SPDE) methods. Then I plan to discuss the Kontsevich-Segal axioms for this model following a recent construction of Jiasheng Lin. Finally, I will conclude the course by sketching the construction of the Φ_3^4 measure on 3-manifolds based on SPDE methods which is joint work with Bailleul-Ferdinand-To.

(part 1)

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