

CONSTRUCTION OF MODELS IN THE FRAMEWORK OF PERTURBATIVE ALGEBRAIC QFT

by

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In these lectures I will present how perturbative models of interacting quantum field theories can be constructed on globally hyperbolic spacetimes. I will start with the simple example of the scalar field and show how to formulate and solve the renormalization problem within the pAQFT framework. Next, I will discuss the generalization of the framework to gauge theories that utilizes the BV formalism. If the time permits, I will present some recent results concerning the non-perturbative aspects of the framework.