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Title: Quantum field theory without quantisation - from standard subspaces to observable algebras.

Abstract: In this talk I will first review how models of free quantum fields can be constructed by modular localisation and second quantisation, an approach due to Brunetti, Guido, and Longo that does not rely on classical field theory. I will then describe more recent work dealing with the question how this construction can be generalised in order to incorporate interacting models as well .