

Asymptotic completeness in wedge-local QFT

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A novel deformation procedure has recently been proposed by Grosse and Lechner as a tool for construction of interacting quantum field theories with observables localized in spacelike wedges. In this talk this procedure is applied to two-dimensional theories of massless particles. The behavior of the scattering matrix under the deformation is obtained explicitly. It is shown that the deformation procedure not only introduces interaction but also preserves the property of asymptotic completeness. In particular, the deformations of chiral conformal quantum field theories give rise to interacting, wedge-local models which are asymptotically complete.