

Bologna Workshop on:

CFT AND INTEGRABLE MODELS



and their applications from gauge/gravity dualities to statistical mechanics and quantum information

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Chang Duality in Ginzburg-Landau Quantum Field Theories

Tuesday, 5 September 2023 16:00 (20 minutes)

We first Review Chang's derivation of a strong/weak duality in the paradigmatic ϕ^4 quantum field theory in (1+1)-dimension. We show how it is possibile to extend this concepts for general Ginzburg-Landau Theories and study in detail the ϕ^6 theory, proving the existence of a strong/weak duality. Such a duality links the strong coupling regime of the \mathbb{Z}_2 symmetric phase of the theory to the weak coupling regime of the \mathbb{Z}_2 spontaneously symmetry breaking Ising-like phase.

Presenter: POMPONIO, Octavio (Istituto Nazionale di Fisica Nucleare)

Session Classification: A nice and passionate journey in low-dimensional systems