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## Non-hermitian tricriticality: a field theoretical approach

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The space of two dimensional quantum field theories can be probed by considering renormalization group flows, whose fixed points are either conformal field theories or trivial theories. Among the conformal field theories there are some models that are unitary (i.e. the inner product in the Hilbert space is non-negative) and some others that are not unitary; although unitarity is usually required in physics, some non-unitary models play a role in statistical physics, when a "physical" meaning is clarified. This is the case of the Yang-Lee edge singularity, that is a critical point that can be reached from the unitary conformal field theory that corresponds to the critical Ising model, by deform it with an imaginary magnetic field. Its interpretation concerns the Yang-Lee zeros: zeros of the analytic extension of the partition function, designed as a function of the fugacity, promoted to be a complex parameter.

Even if the Yang-Lee edge singularity is the only known case, one should expect that others non-unitary models can be reached in similar way. We study conformal model that corresponds to the tricritical Ising model when deformed by an imaginary magnetic field.

### Summary

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