

# Quantum field-theory of low dimensional systems

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## Feynman path-integral

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## Coherent states for bosons

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## Path-integrals for bosons

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## Coherent states for fermions. Grassmann-fields

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C. Itzykson, J.-M. Drouffe, *Statistical field theory*, Cambridge University Press (1989),  
Band I, Kap. 2

## ● Path-integrals for fermions

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## ● Coherent states for spins

A. Perelomov, *Generalized Coherent States and Their Applications*, Springer (1986), Kap. 4

## ● Path-integrals for spin-fields

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## ● The non-linear sigma-model in two dimensions

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## ● Field-theory for the quantum Heisenberg antiferromagnet in one dimension

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## ● Topological excitations I. Pontryagin number

R. Rajaraman, *Solitons and Instantons*, Elsevier (1987), Kap. 3

## ● Field-theory for the quantum Heisenberg antiferromagnet in two dimensions

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## ● Topological excitations II. Hopf-terms and anyons

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