

# References on dynamical symmetry breaking

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- **Textbooks used in my talk**

M. Peskin, D. Schroeder: *An introduction to quantum field theory*, Perseus Books, 1995. Derivation and application of the effective action, analogy of the effective action to the Gibbs free energy in statistical mechanics. Derivation of the Dyson-Schwinger equations, but not much discussion.

C. Itzykson, J.-B. Zuber: *Quantum field theory*, McGraw Hill, New York, 1980. Thorough treatment of the effective action.

- **Effective actions**

J. Cornwall, R. Jackiw, E. Tomboulis: *Effective action for composite operators*, Phys. Rev. **D10** (1974) 2428. Original paper on the 2PI effective action — a generalization of  $\Gamma[\phi_{cl}]$ , depending on  $\phi_{cl} = \langle\phi\rangle$  and on  $G_{cl} = \langle\phi\phi\rangle$ . Therefore, it is well suited for the computation of composite operator vevs.

- **Coleman-Weinberg mechanism**

S. Coleman, E. Weinberg: *Radiative corrections as the origin of spontaneous symmetry breaking*, Phys. Rev. **D7** (1973) 1888. Original (and very well-written) paper by Coleman and Weinberg.

- **Applications of the Dyson-Schwinger equations**

C. Roberts, A. Williams: *Dyson-Schwinger equations and their applications to hadronic physics*, Prog. Part. Nucl. Phys. **33** (1994) 477. An extensive review of Dyson-Schwinger equations in gauge theories, and applications in QCD.