

Supersymmetric quantum electrodynamics

[Carlos D. Ferreira](#), [M. Gonzalo R. S. S. Correa](#), [Mauricio C. S. S. Menezes](#), [H. F. da Rocha](#),
[R. M. S. da Rocha](#), [J. A. G. M. Moraes](#), [M. J. M. S. de Oliveira](#)

Abstract

We study the quantum electrodynamics of two-dimensional quantum electrodynamics in the presence of an external magnetic field with a specific energy and a particular magnetic potential. We determine the critical point of the system and show that the results obtained here are relevant for the study of the formation of a quantum phase transition in the presence of a magnetic field.