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## **The spectrum of longwavelength photons in QED<sub>2+1</sub> in a dense medium**

In 2+1 quantum electrodynamics, the structure of the exact Green function of photons at finite density is derived. It is expressed through 10 tensors and corresponding form factors.

The imaginary time formalism are used.

The spectrum of longwavelength photons is derived from the pole positions of this Green function for the case of form factors computed in one-loop order.

The high density asymptotics for the form factors, the Debye mass, the magnetic mass and the spectra of different photon states in this limit are calculated.

A comparison with the results in the framework of SU(2) gluodynamics is done ([1]).

[1] M. Bordag, V. Skalozub, *Phys. Rev. D*, **75**, 125003 (2007).

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