

Peer Review

Review of: "Fermionic Casimir Effect at Finite Temperature in Hořava–Lifshitz Theories"

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In the introduction, the author built the significance of studying the Casimir effect on the “finite temperature Casimir effect caused by a fermion field that breaks Lorentz invariance.” Based on this, the MIT bag boundary conditions were used to obtain the free energies and Casimir pressures at low and high temperature limits; instances where Lorentz symmetry has been violated or not were all studied in very interesting and convincing mathematical approaches.

I have the following observations:

1. The effect of the finite temperature on the Casimir effect has been adequately addressed.
2. At $\xi = 1$, Lorentz symmetry is not violated, and in this case, the authors showed how their work agrees with previous works on Lorentz-symmetric space-times.
3. The effects of Lorentz symmetry violation on the Casimir vacua that have been derived have not been adequately addressed in the discussions.
4. When studying the high temperature limit, the author usually performs a Poisson resummation; it is not clear how and why that must be done.

Declarations

Potential competing interests: No potential competing interests to declare.