



Contribution ID: 192

Type: **Talk**

Phase transitions in graphene - the effect of anisotropy

Tuesday, 8 September 2020 16:55 (25 minutes)

Abstract:

We study the effect of anisotropy on dynamical gap generation in graphene. We work with a low energy effective theory obtained from a tight-binding Hamiltonian expanded around the Dirac points in momentum space. The resulting continuum quantum field theory is called reduced quantum electrodynamics (RQED 3+1). The theory is strongly coupled, and we use a non-perturbative Schwinger-Dyson approach. Anisotropy is introduced through the fermi velocity of the electronic quasi-particles. Our results show that the critical coupling depends only weakly on the anisotropy parameter, and increases with greater anisotropy.

Is this abstract from experiment?

No

Internet talk

Yes

Name of experiment and experimental site

N/A

Is the speaker for that presentation defined?

No

Details

N/A

Primary author: CARRINGTON, Margaret (Brandon University)

Presenter: CARRINGTON, Margaret (Brandon University)

Session Classification: Workshop on Lattice and Condensed Matter Physics