



Universidade Federal da Paraíba
Centro de Ciências Exatas e da Natureza
Programa de Pós-Graduação *Stricto Sensu* em Física

Colóquio

“Quantum Field Theory of the Casimir Force for Graphene”

RESUMO: Graphene is a two-dimensional layer of carbon atoms possessing a hexagonal honeycomb crystal lattice. Quasiparticles in graphene are the massless Dirac fermions. This makes graphene electrical and mechanical properties very unusual. In the framework of Dirac model, the dielectric permittivity of graphene can be calculated from first principles of quantum field theory at nonzero temperature using the concept of the polarization tensor. We demonstrate how this quantity can be used for theoretical description of the Casimir force in graphene systems.

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17/jun/2016	16h00
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Auditório da Pós-Graduação em Física (novo prédio)	
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