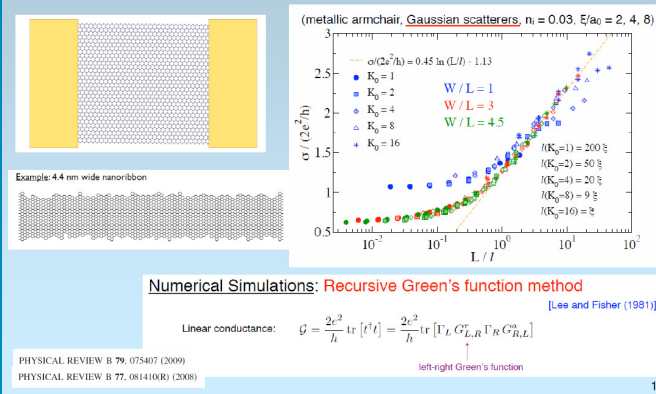


Sistemas mesoscópicos: desordem, descoerência e transporte

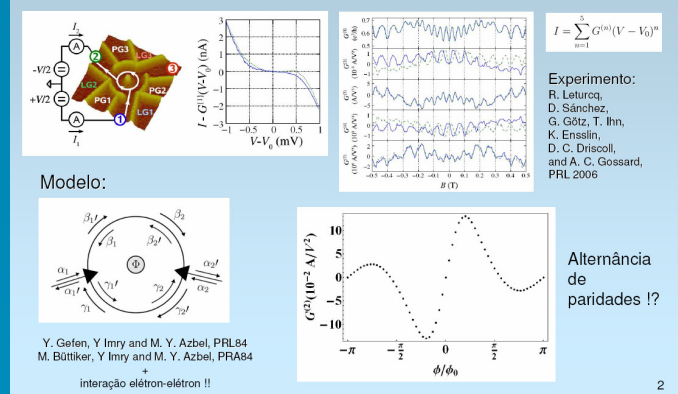
Alfredo M. Ozorio de Almeida (CBPF)
Caio H. Lewenkopf (UERJ)
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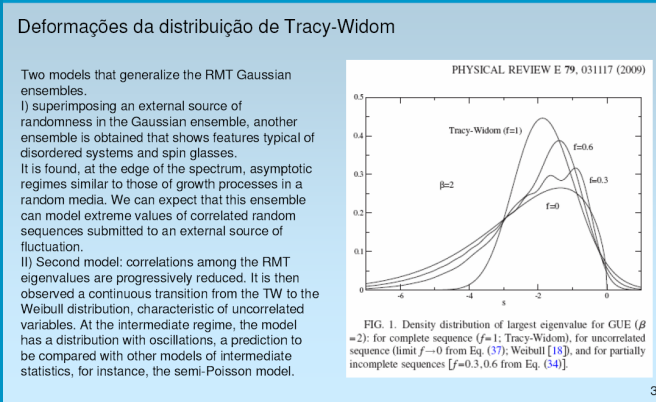
Electronic Transport in Disordered Graphene Sheets and Nanoribbons



Transporte não-Linear em Sistemas Mesoscópicos



Teoria de Matrizes Aleatórias: Ensembles Desordenados



Teoria Semiclássica da Descoerência

$$\frac{\partial \hat{\rho}}{\partial t} = -\frac{i}{\hbar} [\hat{H}, \hat{\rho}] + \frac{1}{\hbar} \sum_k \left(\hat{L}_k \hat{\rho} \hat{L}_k^\dagger - \frac{1}{2} \hat{L}_k^\dagger \hat{L}_k \hat{\rho} - \frac{1}{2} \hat{\rho} \hat{L}_k^\dagger \hat{L}_k \right),$$

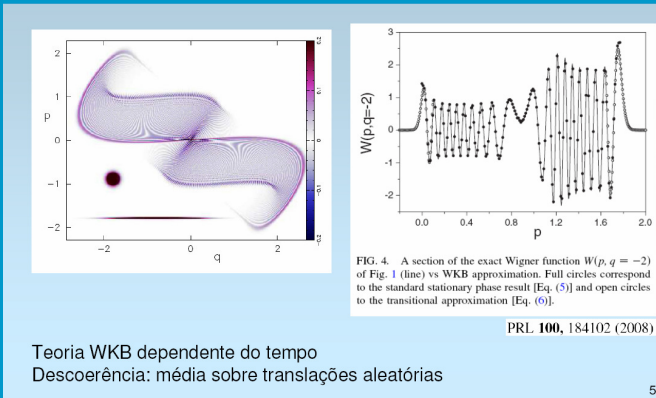
Equação de Lindblad

$$\hbar \frac{\partial \chi}{\partial t}(\xi, t) = \int \frac{d\xi' dx'}{(2\pi\hbar)^2} \chi(\xi', t) \exp \left[\frac{i}{\hbar} [x' \wedge (\xi - \xi')] \right] \left\{ -i \left[H \left(x' - \frac{\xi}{2} \right) - H \left(x' + \frac{\xi}{2} \right) \right] + \left[L \left(x' + \frac{\xi}{2} \right) L \left(x' - \frac{\xi}{2} \right) - \frac{1}{2} \left[L \left(x' + \frac{\xi}{2} \right) L \left(x' + \frac{\xi}{2} \right) + L \left(x' - \frac{\xi}{2} \right) L \left(x' - \frac{\xi}{2} \right) \right] \right\} \right\} \quad (4.5)$$

Equação diferencial para a função característica; Hamiltoniana quadrática, Lindblads lineares
Técnicas de espaço de fases duplo; WKB

J. Phys. A: Math. Theor. 42 (2009) 065306 (20pp)

Propagação Semiclássica de Estados Gaussianos



Interacting Bosons in Random Media

