



FLEET

ARC CENTRE OF EXCELLENCE IN
FUTURE LOW-ENERGY
ELECTRONICS TECHNOLOGIES

FLEET RESEARCH SEMINAR

Strain enhancement of Kondo effect in Graphene

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Abstract: The study of magnetic impurities on pristine graphene and its corresponding Kondo physics, results in predictions of unusual features due to the linear vanishing density of states at the Dirac points. However, despite several attempts to uniquely identify Kondo state characteristics, conclusive experimental observation of the phenomenon remains elusive, due in part to very small Kondo temperature scales for chemical potentials near these points. Interestingly, local deformations in graphene have been shown to produce inhomogeneous charge distributions determined by the strain field's magnitude and spatial dependence. In this talk, I will review results from our recent studies on Kondo physics on strained membranes and will discuss potential experimental observations for various impurity settings.

About the Speaker: Nancy Sandler is a Professor of Physics in the Department of Physics and Astronomy at Ohio University, Athens, Ohio, USA. She holds a Ph.D. in theoretical physics from the University of Illinois at Urbana-Champaign, and a Licenciatura en Ciencias Físicas degree from the University of Buenos Aires, Argentina. Sandler's research on low-dimensional materials focuses on strong interacting regimes and non-equilibrium phenomena. She is currently the Graduate Chair of the Department of Physics and Astronomy, a board member of the Margaret Boyd Scholar Program at Ohio University, and editor of the Ohio Materials Institute (previously Nanoscale and Quantum Phenomena Institute) newsletter.

DATE: Monday 10 December 2018

TIME: 11:00AM–12:00midday

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