



# 545<sup>th</sup> ASRC Seminar

Date: 13:30 ~ 15:00, 31 March

Location: Meeting room 302, ASRC Building

Speaker: Prof. Fuchun Zhang  
(University of Hong Kong)

Title: Layered antiferromagnetic spin density  
wave and half metallic state  
in multi-layer graphene systems

In this talk, I will discuss correlation effect in multi-layer systems. We show theoretically that layered antiferromagnetic spin density wave can be ground states, where the spins in neighboring layers have opposite directions. In particular, we propose that lightly charged bilayer graphene in an electric field perpendicular to the graphene plane may be a half metal. We show this explicitly by using a mean field theory on a 2-layer Hubbard model for the bilayer graphene.



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