

Abstract Submitted  
for the MAR15 Meeting of  
The American Physical Society

**Density of states and tunneling conductance of ABC-stacked trilayer graphene** JONGBAE HONG, POSTECH/APCTP, DAVID ABERGEL, Nordita, KTH Royal Institute of Technology and Stockholm University — Experimental studies on ABC-stacked trilayer graphene suggest that the trilayer graphene may have a strongly correlated ground state which drives the opening of a band gap at the Fermi level. We propose a theoretical model for the tunneling conductance of strongly correlated trilayer graphene based on a Kondo-like mechanism of coherent transport where electrons tunnel into the correlated sample via an entangled singlet state. Our theory fits current experimental data extremely well, including peculiar features such as two pairs of kinks at low bias and a peak and shoulder at a relatively high bias. No other theoretical study has previously explained these features of the line shape. We also suggest a phenomenological estimate of the density of states in the strongly correlated regime. This has not previously been studied.

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Date submitted: 13 Nov 2014

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