Electronic correlation in ABC graphene trilayers XU DOU, AK-BAR JAEFARI, University of Oklahoma, YAFIS BARLAS, University of California at Riverside, BRUNO UCHOA, University of Oklahoma — At low energies, undoped ABC-stacked trilayer graphene can be described by an effective two-band model which features a cubic noninteracting energy spectrum. The divergence of the density of states at the neutral points provides a large phase space for electronic instabilities, which differentiates it from single-layer and bilayer graphene. In the large N limit, where N is the number of fermion species, we show that the self-energy is logarithmically renormalized by Coulomb interactions in leading order in 1/N. We show that the dynamical polarization bubble is also logarithmically divergent near the edge of the particle hole continuum. We investigate the renormalization of different physical observables accounting for dynamical polarization effects.