

Abstract Submitted
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Graphene Plasmons In Interaction With A Surface N.J.M. HOR-
ING, Stevens Institute of Technology, J.D. MANCINI, Kingsborough College of
CUNY — Recent experimental research on the plasmon spectrum of both carbon
nanotubes and graphene has revealed a linear π plasmon dispersion, which has been
attributed to local field effects. Here we examine other possible sources of the linear
plasmon dispersion found in graphene. In particular, we study the dispersion which
may arise from the interaction of the intrinsic graphene plasmon ($\omega \sim q^{1/2}$) with
the surface plasmon of a nearby thick substrate hosting a semi-infinite plasma.

Vassilios Fessatidis
Fordham University

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