

Abstract Submitted
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Optical conductivity in dynamic Hubbard model GIANG BACH,
Department of Physics, University of Alberta, Edmonton, Alberta, Canada, T6G
2J1, JORGE HIRSCH, Department of Physics, University of California, San Diego,
La Jolla, California, 92093-0319, FRANK MARSIGLIO, Department of Physics,
University of Alberta, Edmonton, Alberta, Canada, T6G 2J1 — The Dynamic Hub-
bard model is a candidate to capture the physics of two-band Hubbard models, such
as the enhancement of critical Hubbard U for the Mott transition. A pseudo-spin
 $1/2$ auxiliary field, which modifies the Coulomb U interaction based on the on-site
occupancy of electrons, breaks the electron-hole symmetry normally associated with
the Hubbard model. The dependence of optical conductivity on the number of par-
ticles also reveals the effect of the pseudo-spin on the spectral weight distribution
as a function of frequency.

Giang Bach
Department of Physics, University of Alberta

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