

# Nonlinear Correction Effects on Transverse Dust Lattice Waves in Dusty Plasmas

Won-Seok Chang<sup>a</sup> and Young-Dae Jung<sup>a, b</sup>

<sup>a</sup> Department of Applied Physics, Hanyang University, Ansan, Kyunggi-Do 426-791, South Korea

<sup>b</sup> Department of Physics, 0319, University of California, San Diego, 9500 Gilman Drive, La Jolla, California 92093-0319, USA

Reprint requests to Prof. Y.-D. J.; E-mail: ydjung@hanyang.ac.kr, ydjung@physics.ucsd.edu

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The nonlinear correction effects on the transverse dust lattice mode wave are investigated in dusty plasmas. It is shown that the nonlinear correction effects on the dispersion relation increase with decreasing  $a/\lambda_D$ , where  $a$  is the spacing of dust grains and  $a/\lambda_D$  is the Debye length. It is also found that the nonlinear correction effects enhance the frequency of the transverse dust lattice wave.

*Key words:* Transverse Dust Lattice Waves; Dusty Plasmas.