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**Damping of condensate oscillations of a trapped Bose condensate in a 1D optical lattice at finite temperatures** EMIKO ARAHATA, TETSURO NIKUNI, Tokyo University of Science — We study Landau damping of dipole oscillations of a Bose condensate in a 1D optical lattice at finite temperatures. Assuming that an additional trap potential is highly anisotropic, in which the radial confinement is much tighter than the axial confinement, we derive a quasi-1D model of the Gross-Pitaevskii equation and the Bogoliubov equations that include the effect the excitations in the radial direction. We calculate the Landau damping rate and investigate its dependence on the lattice depth, compare our result with the experimental data on collective modes in an optical lattice [F. Ferlaino et. al., Phys. Rev. A 66, 011604(2002)].

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