

# **Metal-Insulator transition in the two-dimensional Hubbard model on an anisotropic triangular lattice**

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To clarify the property of Mott transition and the magnetic transition in the finite dimensions with geometrical frustration, the two-dimensional Hubbard model on the anisotropic triangular lattice is studied by exact diagonalization up to an eighteen-site cluster. To discuss finite size effects, we calculate Drude weight, double occupancy, and spin-structure factor under various boundary conditions. It is found that the Drude weight averaged over boundary conditions is efficient to determine the metal-insulator transition. We also analyze the antiferromagnetic transition by the average spin-structure factor.