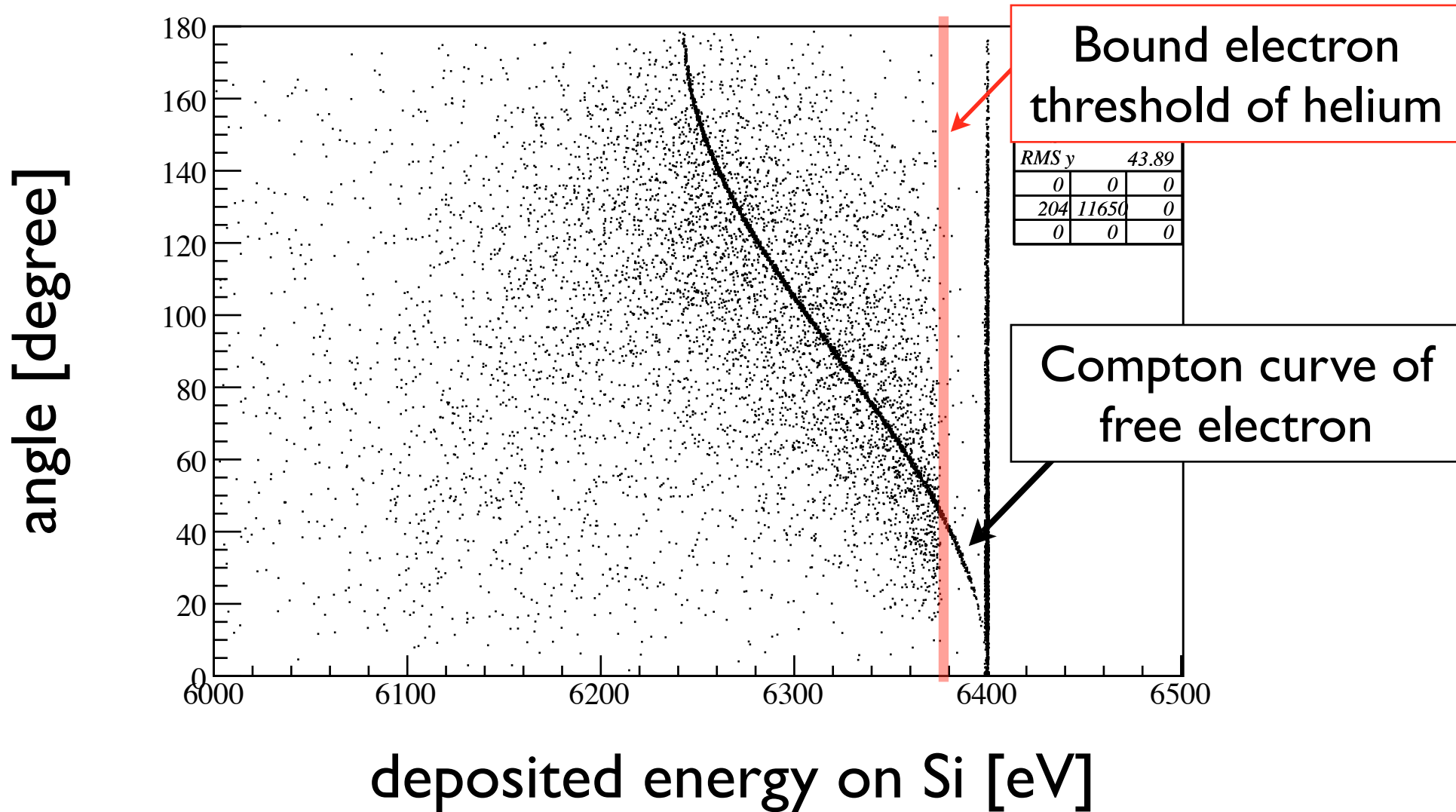


19/Dec/2006 Hideyuki Tatsuno

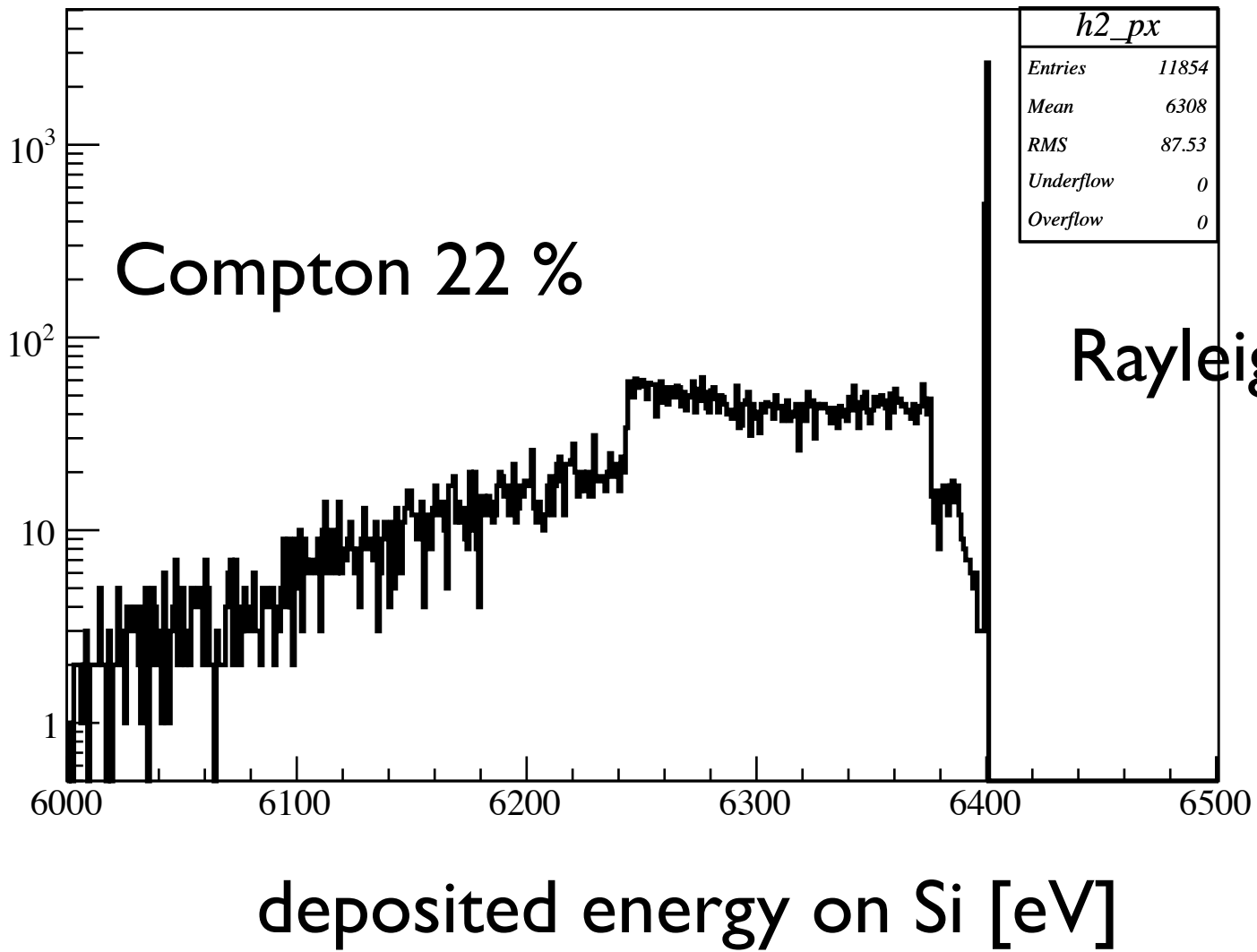
GEANT4 simulation

Only helium-4 target

other materials were removed
to see just the Compton effect of helium-4



The free electron scattering curve was again exist.
 This means GEAN4 treats the bound electrons of helium atom as free electrons sometimes...



The interpretation of the double Compton scattering was wrong, because there are some events of scattered bound electrons.

A bound electron can get continuum momentum from a photon, so the scattered photon doesn't have the backward Compton edge.

GEANT4 simulation may have some limits about the treatment of the bound electrons of atoms.