

Title: Cometary coma outflow accelerated/decelerated by the icy dust sublimation 冰塵昇華對彗髮散逸速度之影響

Abstract: We will apply the Parker Solar wind model to the outflow of the cometary coma. The main differences are 1) the outflow is powered by the Solar irradiation, 2) the outflow is a mixture of gas and icy dust grains, and 3) the proportions of gas and dust can evolve in the outflow due to further sublimation. We will adapt the model and find the solution for this new hydrodynamical system. This will tell whether the outflow is facilitated or suppressed by the ice sublimation, and in which conditions the cometary coma is able to escape. Knowledge in hydrodynamics and basic programming is preferable.