A new drag force model based on drift flux for gas-particle two-phase flow ZHI SHANG, JING LOU, HONGYING LI, IHPC, Singapore — A drag force model was developed to simulate gas-particle two-phase flows. The drag force model was based on the gradients of the drift flux by considering the centrifugal force on the solid particles. According to the gradients of the drift flux, the terminal velocities of the dispersed phase (solid particles) were able to be calculated by the revised gravity. Through the numerical simulations comparing with the experiments and the simulations of the traditional k-ε-Ap and k-ε-kp models, this model was validated.

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