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AHW29-P04 Room:Convention Hall Time:May 21 13:45-15:15

Influence of lake current, wave and local atmospheric circulation on bulk transfer coefficient over a lake surface

WEI, Zhongwang[1*], SUGITA, Michiaki[1]

[1]Life & Environ. Sci., Uni.Tsukuba

The turbulence and atmospheric data have been collected at the center of Lake Kasumigaura since 2007, in order to develop an improved lake-atmosphere fluxes parameterization. To estimate the fluxes more accurately, the bulk transfer method which incorporates the water surface status including the effect of wave, wave age and lake current was considered. Also the atmosphere status such as atmosphere stability and gustiness induced by the convective circulations under calm mean winds were investigated. Considering above parameters, the roughness length for momentum, sensible heat, latent heat were calculated. These results were used to determine the factors affecting the bulk coefficients. The estimated fluxes with a bulk method were compared with measured fluxes.

Keywords: flux, bulk transfer coefficient, roughness, wave, lake current