

Libra 2, eruption of Arisu volcano: a gaming simulation of preliminary evacuation from volcanic disaster

Shintaro Hayashi[1]; Aya Akatsuka[2]; Hideyuki Itoh[3]

[1] Dep. of Earth Sci., Akita Univ.; [2] Dep. of Earth Sci., Fac. of Educ. & Human Sci., Akita Univ.; [3] NILIM

Preliminary evacuation from the estimated hazard area is important in volcanic eruption. Because, evacuation from high-speed hazardous eruption such as lahar or pyroclastic flow is difficult, if it begins to occur.

Preliminary evacuation is difficult because forecasting change of volcanic eruption is difficult. No one is certain that what comes next.

Libra 2, eruption of Arisu volcano is a gaming simulation of preliminary evacuation in uncertain condition. In Libra 2, change in volcanic activity is controlled by dice or cards. Probability of each eruption style is designed to coincide with imaginary probability tree.

The player of Libra 2 will be in uncertain condition. Because, no one can predict the dice number to come next. The player of Libra 2 will also be caught in a dilemma. If he wants to minimize the sacrifice of eruption, cost of evacuation will be enormous. If he wants to minimize the cost of evacuation, human loss will be awfully big.

Libra 2 is designed to simulate preliminary evacuation of Usu 2000 eruption.