

Simulation of Light Pollution of the Night Sky

~Use the mesh of population and elevation~

*Ryota Yamaguchi¹, *Kosuke Yoshisuji¹, Takumi Yamamoto¹, Syota Kawaguchi¹, Taiga Moriya¹

1. Ichinomiya High School

Light Pollution causes various problems due to the use of excessive light and is one of the pollution problems.

There are two problems in the influence of light pollution.

First, light pollution has some bad effects on the ecological system, such as the effect on growing and breeding of animals and plants.

Second, it causes problems of affecting the brightness of night-sky, which make it hard for us to see stars in the sky when illuminating the night sky brightly by artificial light.

We're doing research about light pollution by actual observations and the simulation using a computer.

Furthermore, we try to improve accuracy of the computer simulation with the use of a procedure called Mesh, which takes the population and earth's elevation in a certain area into account and make maps the brightness of the night sky all over Japan.

Keywords: Light pollution, simulation, Data of Mesh

