Week5 research note

I read an thesis and learn something.“

A study on the adaptation of the firefly Algorithm for the synchronization between Multiple Controller sin SDN Environment” Green Kim, Keecheon Kim.

Firefly Algorithm

When the firefly populations start flashing. Fireflies begin to light in a state of chaos shining. Since, each firefly’s period of time for glittering is based on the natural frequency of each firefly. As time goes by, fireflies synchronize their emitting time through the interaction between individuals. As a result, you can see the one of the huge natural phenomenon from the synchronization of the firefly populations.

In other words, Firefly algorithm is the algorithm that inspired by the collective synchronization of firefly.

Firefly algorithm can be briefly described as follows: through the kuramoto model 

θ is the phase of the entity, w is the natural frequency of the entity and K is the coherence between entities.

To illustrate the model, brief as follows, In a state that starts flashing. Prior to natural synchronization, each entity deigns to light in accordance with its own frequency.

However, when start the interaction between entities it causes a change in natural frequency of each object. If the strength of the coupling through the interaction is increase and become greater that the value of natural frequency they had, the phenomenon that phase or natural frequency of the entity is equal will occur.