Interpretation on preliminary analytic graphs:

- What do the graphs mean?

  The y-axis illustrates the SINR, which will be obtained by the agents after a random action at every iteration. The actions are predefined transmission power level, ranging from 2 dB to 16 dB with step size 2. We did the experiments on 1000 iterations, which can be known from the range of the x-axis.

- What can we know from the graphs?

  Graph 1 and 2 show similar results, though they are generated from different experiments. One goal we have achieved so far is that, the SINR of MUE is higher than the SINR of FUE at most of the iterations, so that MUE can be protected in the uplink interference. This is achieved by our design of reward functions. More details about the reward function design will be covered in the next period, since the reward function used now is not finalized. We expect a convergence of the agents to a certain SINR ratio after some iterations.

- What will we do based on the results shown in the graphs?

  With this result, our next challenge is to answer the following questions:

  1) How can we let all the agents converge to a stable SINR point after performing some iteration?
  2) How can we maintain the SINR of all the agents to be higher than a defined threshold?