# CPE with Agent Based Modeling

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## Setting

#### The number of iterations is 100

| Experiment transmission rate |           |           |           |           |           |           |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| $\beta$                      | $10^{-8}$ | $10^{-7}$ | $10^{-6}$ | $10^{-5}$ | $10^{-4}$ | $10^{-3}$ |
| patients                     | 1.83      | 2.04      | 2.05      | 2.33      | 2.77      | 6.95      |

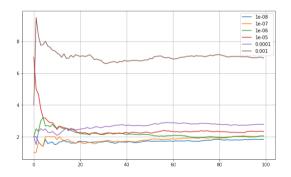


Figure 1: Cummulative Average number of sick patients

### Result

It is concluded that 80 or more is appropriate for the average value to come out stably. For more stability, the number of iteration is fixed at 100.

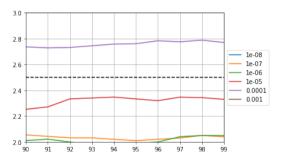


Figure 2: Cummulative Average number of sick patients

Choose the values from  $10^{-5}$  to  $10^{-4}$  as transmission probability

### Questions

▶ Are there any another values that depend on *transmission probability* besides the number of patients?