Feature Selection : Method of Morris

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1. **Structure**

- A class is defined (*MorrisMethod*) to determine which parameters matter in non-agent-based simulation model (*Simulation_Model).* The impact of each parameters calculated by using a goodness function.

- Hypotheses:
  The parameter with the high impact value has the more importance (matter the most).

- Treatments: Method of Morris applies on three parameters from the simulation model (productivity_growth, interest_rate, employment_rate_initial). A function (*goodness_euclidian*) is defined to determine the goodness. Impact of different parameter is calculated by using the goodness values.

- Response: As we are checking the impact of three parameters, method of Morris (*MorrisMethod*) will print three impact values for each parameters. The parameter with the higher value has the greater impact.

2. How to run the code
The script can be executed directly. It will print the impact value for three parameters into the interpreter.

3. Code
Please see the .py file.

4. Results and Interpretation (Problem_03)
According to the final result, the parameter *productivity_growth* will always have the higher impact than other two parameters in every run. The result will be the same if we increase the sample size (sample_size) in the class *MorrisMethod.*