MATLAB

Tutorial 6

Exercise 1

- **Exercise 1**
- Compute prices of American options with floating strike price. (in discrete time)

Exercise 2

- **Exercise 2**

- Compute prices of Asian arithmetic's and geometrics options. (in discrete time)

Exercise 1

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Payoff of Asian arithmetic's is

$$\max(\frac{1}{n}\sum_i^n S_i\text{-}K_i, 0) \text{ -- call}$$

Payoff of Asian geometrics is

$$\max(\sqrt[n]{\prod_i^n S_i}\text{-}K_i, 0) \text{ -- call}$$

Example of floating strike price:

– consider it as a product of positive random number between (0,2) and S_0,

$$K_i = S_0 \text{ x } 2 \text{ x rand;}$$