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mc_tsitsiklisvanroy

Input parameters:

- Number of iterations N
- GeneratorType
- Increment inc
- Dimension Approximation $dimapprox$
- Number of Exercise Date $exercise\ date\ number$

Output parameters:

- Price P
- Delta δ

Description:

Computation of Bermudian Option Price with the Tsitsiklis-Van Roy algorithm that uses an approximation of dynamical programming using regression method[2],[1]. [Tsitsiklis-VanRoy Method](#)

References

- [1] J.N.TSITSIKLIS B.VAN ROY. Optimal stopping of markov processes: Hilbert spaces theory, approximations algorithms and an application to pricing high-dimensional financial derivatives. *IEEE Transactions on Automatic Control*, 44(10):1840–1851, October 1999. [1](#)
- [2] J.N.TSITSIKLIS B.VAN ROY. Regression methods for pricing complex american-style options. *Working Paper*, MIT:1–22, 2000. [1](#)