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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 $\delta$

## 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