

Topics for Computational Finance

Collection in addition to Seydel's "Tools for Computational Finance"

The page was set up in May 2012. Several topics of computational finance are illustrated and explained. The *Topics* extend the *Tools*. Our aim is to provide colored illustrations, which may support understanding. The collection will be extended. Properly quoted, the *Topics for CF* may be used for teaching purposes.

topic

- 1: [Discrete Dividend I: Non-Connected Stopping Region](#)
- 2: [Parameter Dependence of Tree Methods](#)
- 3: [Rejection Method: Applications](#)
- 4: [Finite Differences: Non-Equidistant Grids](#)
- 5: [Discrete Dividend II: Jump in the Value Function](#)
- 6: [Monte Carlo: Regression for American-Style Options](#)
- 7: [Two-Asset American-Style Maximum Call: Early-Exercise Structure](#)
- 8: [Tilted Tree for Vanilla Options](#)
- 9: [Penalty Method for a Vanilla Option](#)
- 10: [Efficiency of Standard Normal Distribution Function](#)
- 11: [Approximating Volatility Surfaces](#)
- 12: [Assembling for FE Methods on a Planar Domain](#)
- 13: [High Contact of a Perpetual Option](#)
- 14: [Random Numbers from RANDU](#)

in Edition 6, it refers to

- Section 1.4.7
Section 1.4
Sections 2.2, 2.3
Chapters 4, 5, 6
p. 245, Section 1.4.7
Chapter 3
p. 347, Exercise 6.2
Exercise 1.7
Sections 4.5.4, 6.7
Appendix E.2, Exercise 1.5
Volatility, Appendix A6
Section 5.4.4, Exercise 5.8
Section 4.5, Exercise 4.7
Section 2.1, Exercise 2.3

last change: Feb 2023