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Financial Engineering with Finite Elements (The Wiley Finance Series)

Juergen Topper
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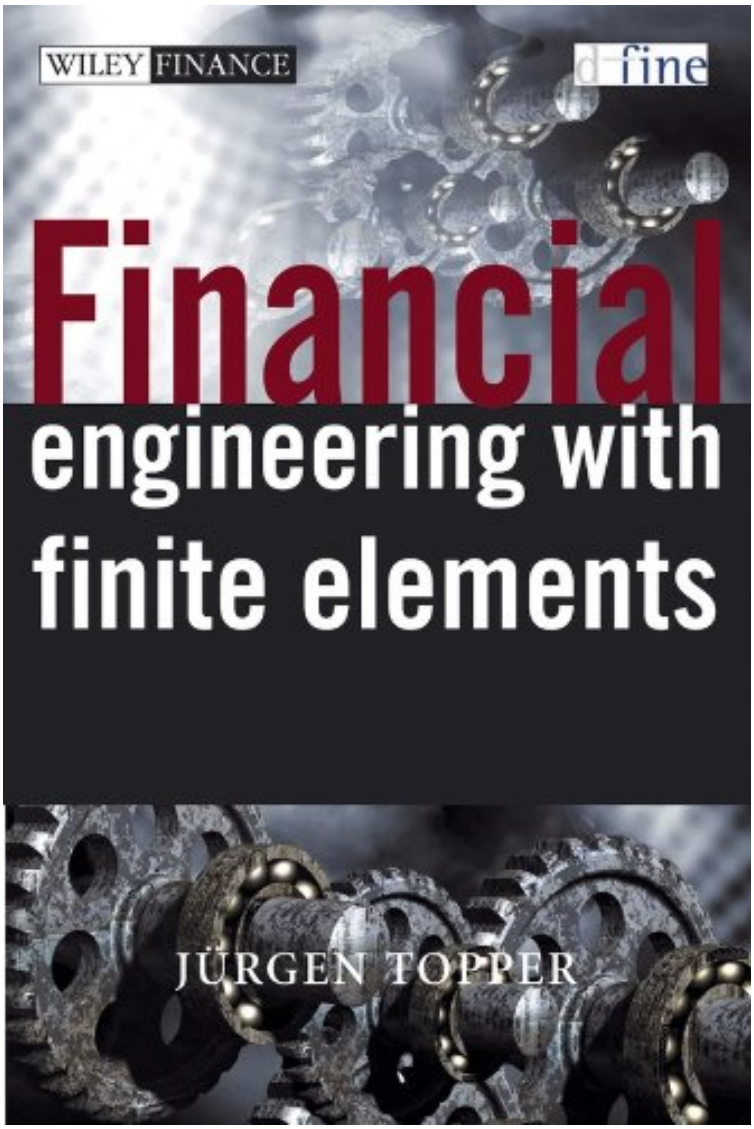

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Juergen Topper : Financial Engineering with Finite Elements (The Wiley Finance Series) before purchasing it in order to gage whether or not it would be worth my time, and all praised Financial Engineering with Finite Elements (The Wiley Finance Series):

2 of 2 people found the following review helpful. An online Errata would be niceBy John W. FuquaI found this to be a very good book. I think, though I could be wrong, that these are typos:p. 50 3.258 Should be S=E*exp(x)p. 51 3.279 Should be '+w(i-1,j)' not '-'p. 61 4.32 Should be u(x,-525/23) instead of -523p. 64 4.50 Should be a3 = -(163*a4

+3,200,000)/880p. 66 4.75 and 4.75 should be a5*0.05^4 and a5*0.15^4 respectively instead of a4p. 74 4.124 Should be (x^3 -4x) not (x^4-4x)p. 74 middle of the page first 'L(u)=...a2*u...'should be 'L(u)=...a2(x)*u...'p. 100 formula (4.343) has to be '...ln(xmin/xmax))' for values in Table 4.9 to be correct.I'm sure what Table 4.9 'First Exit Time' values represent and have not gone deeper into what is being done. I.e. time is not an inputparameter and the values returned aren't premium.p. 105 It looks like the graph line for Figure 4.15(b) is missing unless it is the single right-hand vertical line near x=1.0. However it is thesmall curved line near U= -0.0000.p. 161 8th line should be 'see Definition 11 in Appendix A, not Definition 9p. 177 above 6.48, 'All triangular elements in Figure 6.4...' not 6.5 ?p. 181 to 183 I don't see Figure 6.10 referenced. Probably did not need to be but transform method did not seem to be explained.p. 191 under (6.97) 6.104 Where did 'b' come from ?p. 191 6.103 and 6.104 should a3 and a4 be a1 and a2 ?p.192 5th to last line should be 'The last two columns of Table 6.5...' not 6.2p. 192 scale for Figure (6.15) is 'u-uritz (10^-3)' I assume that was just the result of a label in the code for generating the graphp. 216 someone else mentioned the 'V' on the right side of (9.14)-(9.16) and time 't' valuationsdon't seem right. [Another person pointed this out to me and] asked "what is the meaning of the variable/parameter 'V' on theright side of these equations? I cannot find a reference to it (maybe it is describedsomewhere) but it might be the solution of the respective BS PDE in two factors. This meanswhen solving the 3d case we have to solve a 2d case on each face of the cube?" LaterThe same person said "I think indeed that it is the solution of the 2d PDE case (just as the 2-factorreduces to the 1-factor on the boundary). If this is so we must do a lot of computation; at eachtime level we solve for the BCs (which are also PDEs)."p. 221 before (10.5) should be 'Inserting...' not 'Integrating...'p. 229 3rd to last line should be 'Equivalent .. Equation (10.49)...' not 10.50p. 229 eq. 10.35 'H' in summation not defined. Stands for 'Holding Period' ?p. 232 5th line should be 'Inserting ...equation 10.64' not 10.65p. 234 line above 10.95 should be 'Inserting equation 10.91 not 10.90. Also sign changed from 10.91 to 10.92. Correct ? i.e. should 10.93 be +x*sigma^2 *d^2(v)/dx^2---which seems to change your argumentp. 245 eq (10.138) = 4.3638 [correct values for sigma_min]; what is (10.139) value of .55

The pricing of derivative instruments has always been a highly complex and time-consuming activity. Advances in technology, however, have enabled much quicker and more accurate pricing through mathematical rather than analytical models. In this book, the author bridges the divide between finance and mathematics by applying this proven mathematical technique to the financial markets. Utilising practical examples, the author systematically describes the processes involved in a manner accessible to those without a deep understanding of mathematics. * Explains little understood techniques that will assist in the accurate more speedy pricing of options * Centres on the practical application of these useful techniques * Offers a detailed and comprehensive account of the methods involved and is the first to explore the application of these particular techniques to the financial markets

From the Inside FlapThe pricing of derivative instruments has always been a highly complex and time-consuming activity. Advances in technology, however, have enabled much quicker and more accurate pricing through numericalnbsp;when analytical solutions are not available. In this book, the author bridges the divide between finance and mathematics, by applying the finite element method, a proven mathematical technique from engineering and natural sciences, to the financial models. Utilising practical examples and aided by an easy to use computer program, the author systematically describes the processes involved in a manner accessible to those without a deep understanding of mathematics. This book is a detailed and comprehensive account of the methods involved and is the first to explore the application of these particular techniques to the financial markets.From the Back Cover"Topper brings together a powerful set of tools for quantitative modeling in finance.nbsp; When confronted with challengingnbsp;numerical PDE problems, I have more than once been told that the recommended recipes are well known by PDE specialists, although not found in books.nbsp; Topper's book is now an exception!"nbsp; Darrel Duffie, Graduate School of Business, Stanford University, USA "Financial Engineering with Finite Elements is packed with state of the art valuation methods.nbsp; Written in a clear and intuitive way makes it a must have for anyone wanting to stay ahead of the game.nbsp; The book stands out from the crowd with a lot of information I have never seen published in any other finance book."nbsp; Espen Gaarder Haug, Trader, J.P. Morgan, New York "Finite elements have for a long time been a preferred numerical scheme for the solution of differential equations arising in the hard sciences.nbsp; Now Juuml;rgen Topper shows us how to apply the technique effectively to solve equations from the financial arena including the pricing of derivatives.nbsp; He includes sections on multi-asset options, non-linear equations, exit times and exotics.nbsp; A very welcome addition to the literature on numerical analysis in finance."nbsp; Paul Wilmott, fund mananger and mathematician, London "Juuml;rgen Topper fills an important gap in the burgeoning literature on mathematical finance by providing a systematic and accessible description of the Method of Finite Elements and its applications.nbsp; Since this important computational technique has a lot of potential in financem the book is very timely."nbsp; Alexander Lipton, Citadel Investment Group, L.L.C., ChicagoAbout the AuthorJUuml;RGEN TOPPER is a Manager of d-fine GmbH, Frankfurt, a company that specialises in financial and commodity risk consulting. Prior to this, he worked for the financial risk management consulting division of Arthur

Andersen since 1997.