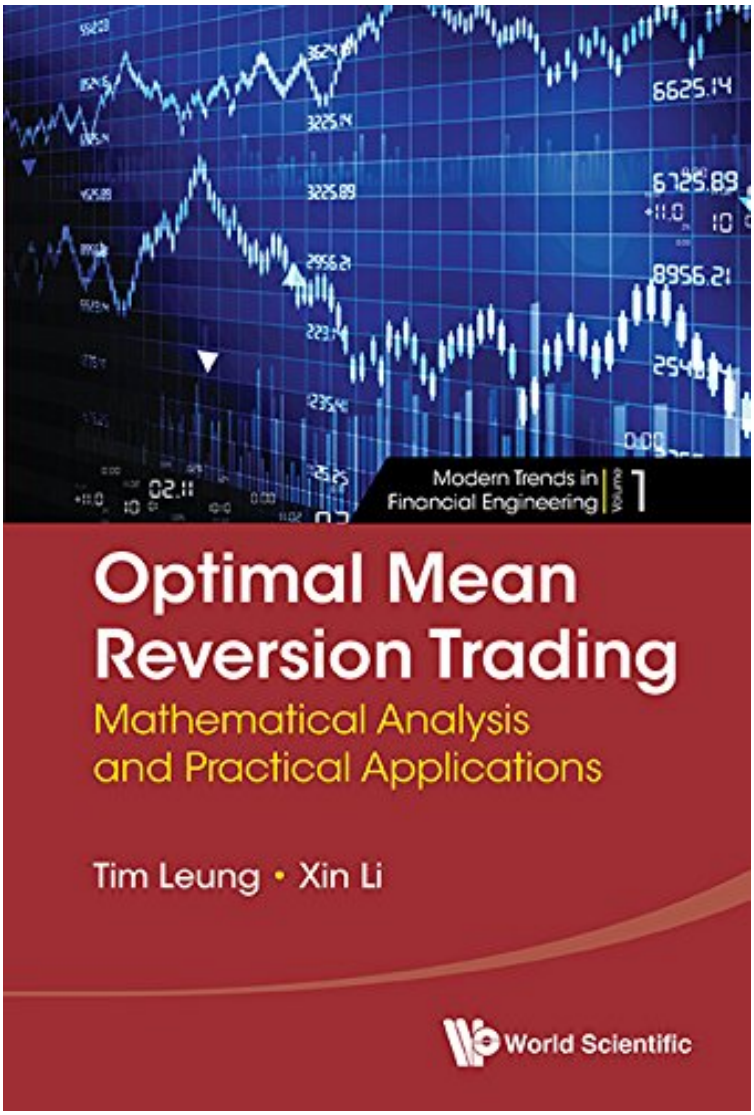
Optimal Mean Reversion Trading:Mathematical Analysis and Practical Applications (Modern Trends in Financial Engineering)

Tim Leung, Xin Li



#1316653 in eBooks 2015-11-26 2016-01-21File Name: B01AWC6PKO | File size: 16.Mb

Tim Leung, Xin Li : Optimal Mean Reversion Trading:Mathematical Analysis and Practical Applications (Modern Trends in Financial Engineering) before purchasing it in order to gage whether or not it would be worth my time, and all praised Optimal Mean Reversion Trading:Mathematical Analysis and Practical Applications (Modern Trends in Financial Engineering):

Optimal Mean Reversion Trading: Mathematical Analysis and Practical Applications provides a systematic study to the practical problem of optimal trading in the presence of mean-reverting price dynamics. It is self-contained and organized in its presentation, and provides rigorous mathematical analysis as well as computational methods for trading ETFs, options, futures on commodities or volatility indices, and credit risk derivatives.This book offers a unique financial engineering approach that combines novel analytical methodologies and applications to a wide array of real-world examples. It extracts the mathematical problems from various trading approaches and scenarios, but also addresses the practical aspects of trading problems, such as model estimation, risk premium, risk constraints, and transaction costs. The explanations in the book are detailed enough to capture the interest of the curious student or researcher, and complete enough to give the necessary background material for further exploration into the subject and related literature.This book will be a useful tool for anyone interested in financial engineering, particularly algorithmic trading and commodity trading, and would like to understand the mathematically optimal strategies in different market environments.

About the AuthorProfessor Tim Leung is an Associate Professor in the Department of Applied Mathematics and the Director of the Computational Finance Risk Management (CFRM) program. Professor Leung obtained his PhD in Operations Research Financial Engineering at Princeton University. He was previously an Assistant Professor in the Department of Applied Mathematics Statistics at Johns Hopkins University and in the Department of Industrial Engineering Operations Research at Columbia University.Professor Leung's research areas are Financial Mathematics and Optimal Stochastic Control. He has worked on a variety of problems, such as derivatives pricing, algorithmic trading, credit risk, executive compensation, and exchange-traded funds (ETFs). His research has been funded by the National Science Foundation (NSF), and published in numerous journal articles. He has written two books, respectively, on Optimal Mean Reversion Trading, and ETFs. In 2016, he won the Emerald Literati Network Award.Professor Leung is an Associate Editor of a number of journals, including SIAM Journal on Financial Math, Journal of Financial Engineering, Studies in Economics Finance, High Frequency, and Digital Signal Processing. He is the founding editor of the book series, Modern Trends in Financial Engineering, that publishes monographs on important contemporary topics in theory and practice of Financial Mathematics Engineering. Professor Leung regularly supervises PhD, MS, and undergraduate research projects, collaborates with academics, practitioners, and regulators, and he is active in conference organization. He is the Chair of the INFORMS Finance Section, and the Vice Chair of the SIAM Activity Group on Financial Mathematics Engineering (SIAG-FME).