
A predictor-corrector approach for pricing American options under three different models
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EXIT


Loss-based Risk Measures
Xuedong He
Columbia University
e First Asian Quantitative Finance Conference, Singapore
January 10, 2013
Based on the joint work with
ama Cont (Imperial College and Université Pierre et Marie Curie)
and Romain Deguest (EDHE School)


Semiparametric Discretization for the Diffusion Process
Yingcun Xia
Department of Statistics and Applied Probability
National University of Singapore, Singapore
(A joint work with Lihong Zhang, Tsinghua University, China)
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Turnpike Theorems for Utility Optimization Problem
Baojun Bian
Email: bianbj@mail.tongji.edu.cn
Tongji University, Shanghai, China
AQFC, NUS, 9-11 Jan 2013


MEDIUM


Optimal Display of Limit Order
On the interaction of upstairs and downstairs
Ulrich Horst
Humboldt-Universität zu Berlin
Department of Mathematics
January 11, 2013
on joint work with Gökhan Cebiroglu and
MEDIUM


erton's Strategy (1969,1971)
estors
$u(c) = \frac{c^{1-\gamma}}{1-\gamma}, \gamma > 0, \gamma \neq 1$
al strategy is


Call option:
stock at the strike
Option payoff is (S_T − K)
Assume no transaction costs, no
continuous trading, bank account pays
dS_t = μS_t dt + σS_t dW_t
Continuously adjust stock holding to Δ(t, S
shares (financed using the bank account)
Black & Scholes (JPE '73) showed that the
value at t* = T − t before expiration is give
P^bs(t, S) = SΦ(d_1(t, S)) − Ke^{−rt*}Φ(d_1(
where d_1(t, S) = {log(S/K) + rt*}/σ√t* +
An Adaptive Control Approach to Option Hedging (T.W. Lim)


Location, Location, Location: Econometrics of Asset Pricing with Spatial Interaction
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Asset Pricing with Spatial Interaction
3M


On Time Consistency in Efficiency of Discrete-Time
Efficient Mean-Variance Policy in a Cone Constrained
Market
Duan Li
(Joint Work with Xiangyu Cui and Xun Li)
Department of Systems Engineering and Engineering Management,
The Chinese University of Hong Kong
January 10, 2013


Market Equilibria for Rank-Dependent Utilities
with Heterogeneous Preferences
Xunyu Zhou
January 2013 @ AQFC/NUS


Esa Jokivuolle & Jussi Keppo


and Liquidity
Luis Goncalves-Pinto
[ joint with Min Dai and Jing Xu ]
National University of Singapore
First Asian Quantitative Finance Conference
Singapore / January 10, 2013


First Passage Times of Two-Dimensio
Motion
Steven Kou and Haowen Zhong
Columbia University and NUS
S. Kou and H. Zhong (CU and NUS)
First Passage Times


General form of utility maximization
The problem of utility maximization, in its most general form,
formulated as follows
$V^{\xi} := \sup_{\pi \in \mathcal{A}} \inf_{Q \in \mathcal{P}} \mathbb{E}^{Q}[U(X_T^{\pi} - \xi)]$
$\mathcal{A}$ : set of admissible trading strategies
$\mathcal{P}$ : set of all possible models (probability measures)
$U$ : utility function
$X_T^{\pi}$ : liquidation value of a trading strategy $\pi$
$\xi$ : liability at time $T$
• $\mathcal{P} = \{\mathbb{P}\}$ : Merton(1969) ; Pliska(1986) ; El Karoui and
(2000) ; Hu, Imkeller and Müller (2005)
• $\mathcal{P}$ is dominated : Gilboa and Schmeidler (1989) ; Schied and
(2005)
Chao ZHOU
Ecole Polytechnique
Robust Utility Maximization via 2BSDEs


observation model
basis coefficients:
observation model:
noises with mean
and variance 1.
The sampling probability
sampling: