MISPRINTS AND OTHER MISTAKES

Chapter 1

p 4, line 13 delete *short*
p 5, line 9 says: short position in the European put; replace put by call
p 5, line 7 from below says: $-K = 0$ change to: $-Ke^{-r\tau} = 0$
p 6, line 6 says: $K/B(T)$ units. change to: $K/B(T)$ units and let $\mathcal{B}$ be a portfolio with one stock.
p 7, line 2 says: , $k = 1, 2$. change to: .
p 7, line 3 from below says: $= \Pi_{g(S(T))}$. change to: $= \Pi_{g(S(T))}(t)$.
p 9, line 1 says: future; change to: futures
p 9, Problem 7 is repced by the following problem:

(Marking to margin) Let $t < T$ and $N \in \mathbf{N}_+$. Set $\tau = T - t$, $h = \tau/N$, and $t_n = t + nh$, $n = 0, ..., N$. A financial contract has the following description: at each point of time t_{n-1} the holder of the contract gets a forward contract on S with delivery date t_n and, furthermore at time t_n the holder's saving account adds the amount $S(t_n) - S_{for}^{t_n}(t_{n-1})$ for $n = 1, ..., N$. Prove that the sum of the depositions will grow to the amount $S(T) - S_{for}^{T}(t)$ at time T.

p 10, line 5 from below replace 'convex' by 'increasing'

Chapter 2

p 2, line 15, p 2, line 1 from below, and page 3, line 4 says: strict equality; change to: strict inequality
p 5, line 7 from below replace 'och' by 'and'
p 11, line 3 replace 'at time t' by 'at time $t + 1$'
p 14, line 16 replace $(Y_t)_{t=0}^{T}$ by $Y = (Y_t)_{t=0}^{T}$
p 14, line 5 from below says: $= Y$. change to: $= Y_T$.
p 14, line 1 from below delete $V^u(T)$

Chapter 3

p 10, line 13 says: a simple random walk i.i.d. if; change to: a simple random walk if

Chapter 4

p 10, line 7 from below says: of all real-valued functions; change to: of all real-valued continuous functions
p 13, line 5 from below says: $\sigma G + \tau H$ change to: $\sigma G + \sqrt{\tau} H$
p 16, line 7 from below says: $\max(0, s)$ change to: s

Chapter 5

p 8, line 7 from below says: $\Pi_{Y(t_*)}$ change to: $\Pi_Y(t_*)$
p 8-9, Proof of Theorem 5.1.1 change to:
PROOF For short set $q = r - \frac{\sigma^2}{2}$. We have

$$\Pi_Y(t_*) = e^{-r(T-t_*)} \int_{-\infty}^{\infty} g((S(t_*)e^{q(T-t_*)+\sigma\sqrt{T-t_*}y})\varphi(y)dy$$

and

$$\Pi_Z(t) = e^{-r(t_*-t)}$$

$$\times \int_{-\infty}^{\infty} \left\{ e^{-r(T-t_*)} \int_{-\infty}^{\infty} g((S(t)e^{q(t_*-t)+\sigma\sqrt{t_*-t}x} e^{q(T-t_*)+\sigma\sqrt{T-t_*}y})\varphi(y)dy \right\} \varphi(x)dx$$

$$= e^{-r(T-t)} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} g(S(t)e^{q(t_*-t)+\sigma\sqrt{t_*-t}x} e^{q(T-t_*)+\sigma\sqrt{T-t_*}y})\varphi(x)\varphi(y)dxdy$$

$$= e^{-r(T-t)} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} g(S(t)e^{q(T-t)+\sigma(\sqrt{t_*-t}x+\sqrt{T-t_*}y)}) \exp(-\frac{1}{2}(x^2+y^2))\frac{dxdy}{2\pi}$$

$$= e^{-r(T-t)} E\left[g(se^{q(T-t)+\sigma(\sqrt{t_*-t}X+\sqrt{T-t_*}Y)})\right]_{|s=S(t)}$$

where $X, Y \in N(0,1)$ are independent. Hence

$$\Pi_Z(t) = e^{-r(T-t)} E\left[g(se^{q(T-t)+\sigma(\sqrt{T-t}G})\right]_{|s=S(t)} = \Pi_Y(t).$$

p 10, line 9 from below says: Theorems 5.1.1 and 1.1.2 change to: Theorems 5.1.2 and 1.1.1
p 10, line 5 from below says: Theorem 5.1.1 change to: Theorem 5.1.2
p 11, line 4 says: $\sigma\sqrt{\sigma}G$ change to: $\sigma\sqrt{\tau}G$
p 11, line 10 says: $\sqrt{\sigma}G$ change to $\sigma\sqrt{\tau}G$
p 16, line 6 from below says: future change to: futures
p 17, line 3 says: $S^{T_1}_{fut}(t)$ change to: $S^{T_1}_{for}(t)$
p 21, line 2 says: $v(t,s)$ change to: $v(t,S(t))$
p 23, line 15 says: $\Pi_{Y(t_{n-1})}$ change to: $\Pi_Y(t_{n-1})$
p 24, line 1 says: Theorem 5.4.1 change to: Theorem 5.1.2
p 25, line 2 says $e^{-t\tau}$ change to: $e^{-r\tau}$

Chapter 6

p 5, line 1 from below says: σ change to σ_- (two places)
p 6, line 1 says: σ change to σ_- (two places)
p 6, line 5 from below says: $(U(T)\xi(T) - K)$ change to: $(U(T)\xi(T) - K)^+$
p 6, line 2 from below says: σ change to: ρ