

Corrections

(June 21, 2007)

8, -10, Rubinstein

343, 11, Corollary 3.62

472, add condition “ Ψ is locally bounded” in the statement of Lemma 13.6.

473, the proof of Lemma 13.6 is replaced by

Proof: We consider the integral form in (13.9) only since the differential form can be reduced to the integral one. Suppose first that equality in (13.9) holds. Define $Y = \int_0^\bullet \Psi W^* ds$. Then Y is absolutely continuous. Since $\Psi \geq 0$, by (13.9), we obtain $Y' - \Psi Y = \Psi \Phi$. Set $Z = \exp[-\int_0^\bullet \Psi ds] Y$. Then $Z' = \exp[-\int_0^\bullet \Psi ds] \Psi \Phi$. Noticing $Z(0) = 0$ and the absolute continuity of Z , we see that

$$Z(t) = \int_0^t \exp\left[-\int_0^s \Psi(\xi) d\xi\right] \Psi \Phi ds.$$

Next, by definition of Z and the exchangeability of $\Psi(s)\Psi(t)$, we have

$$Y(t) = \int_0^t \exp\left[\int_s^t \Psi(\xi) d\xi\right] \Psi \Phi ds.$$

Thus, by definition of Y and equality (13.9), we get

$$\begin{aligned} W^*(t) &= \Phi(t) + \int_0^t \exp\left[\int_s^t \Psi(\xi) d\xi\right] \Psi(s)\Phi(s) ds \\ &= \Phi(t) - \int_0^t \left(\frac{d}{ds} \exp\left[\int_s^t \Psi(\xi) d\xi\right]\right) \Phi(s) ds. \end{aligned}$$

This proves the equality assertion.

To compare W with W^* , without loss of generality, assume that $c < \infty$. Define operators A and B on the space of nonnegative functions: $AW = \int_0^\bullet \Psi W ds$, $BW = \Phi + AW$. Since $\Psi \geq 0$, B is order-preserving. By (13.9) and induction, we have $W \leq B^n W$. Next, since Ψ is bounded on $[0, c]$, the spectral radius $r(A) = 0$. Therefore $A^n \rightarrow 0$ and

$$B^n W = \sum_{k=0}^{n-1} A^k \Phi + A^n W \rightarrow (I - A)^{-1} \Phi = W^* \quad \text{as } n \rightarrow \infty,$$

since W^* is the unique fixed point of B . ■

515: 3, 16; 519: -6; 524: -2; 534: -1 $\mathcal{L}ip(E_0)(E_0) \rightarrow \mathcal{L}ip(E_0)$

518. Remove the last sentence “for every ...” in each assertion of Theorem 14.3.

527, 11, (12.24) \longrightarrow (14.24)

531, 7-11, replace all $\rho(X - Y)$ by $\rho(X, Y)$

576, 8, LNM 1501, Springer, 1991

577, 25, Comm. Math. Phys. 104 no.1, 87–102.