## Corrections for

## ABSTRACT DYNAMIC PROGRAMMING

by Dimitri P. Bertsekas

## Athena Scientific

## Last Updated: 11/13/17

- **p. 57 (-5)** Change  $T_{\mu^k}^{m_k}(x)$  to  $(T_{\mu^k}^{m_k}J_{k-1})(x)$
- p. 70 (-5) Change the equation

$$A_b = \{J \mid ||J - J_\mu|| \le b, \ \forall \ \mu \in \mathcal{M}\},\$$

 $\operatorname{to}$ 

$$A_b = \{ J \mid ||J - J_\mu|| \le b \text{ for some } \mu \in \mathcal{M} \},\$$

and delete "b is sufficiently large so that  $A_b$  is nonempty" from the sentence where this equation appears

- **p. 73 (-8)** Change  $W_{\mu}(V,Q)$  to min $\{V,Q_{\mu}\}$
- p. 143 (-3) Change Eq. (4.10) to

$$J_{\pi^{k}[x]}(x) \le J^{*}(x) + \epsilon_{k}.$$
 (4.10)

- **p. 159 (-15)** Change " $J_{\mu^k} \to J^*$ " to " $J_k \to J^*$ "
- **p. 165 (-5)** Change " $T_{\mu^0}^{m_0}J_0 \ge J_1$ " to " $T_{\mu^0}^{m_0}J_0 = J_1$ "
- p. 177 (-13) Change "Prop. 3.2.4" to "Prop. 3.2.3"

**p. 178 (+14)** Change "(S is equal to  $\Re^2$  here)" to "(S is equal to  $S = \{J \mid J(1) > 0, J(2) > 0\}$  here)"

**p. 180** (+3) Change "infinite horizon examples" to "infinite horizon models"

**p. 185 (-2)** Change " $X_k$ " to

$$\dot{U}_k(x) = \left\{ u \in U(x) \mid f(x, u, w) \in X_k, \forall w \in W(x, u) \right\}$$

**p. 240** Replace the last line with "It can be seen that  $U_k(x, \lambda)$  is equal to the set

$$\hat{U}_k(x) = \left\{ u \in U(x) \mid f(x, u, w) \in X_k, \forall w \in W(x, u) \right\}$$

given in the statement of the exercise."

p. 242 (-3) Change "1900" to "2000"

p. 243 Add the reference

[CaR11] Canbolat, P. G., and Rothblum, U. G., 2011. "(Approximate) Iterated Successive Approximations Algorithm for Sequential Decision Processes," Technion Report; appeared in Annals of Operations Research, Vol. 208, 2013, pp. 309-320.