Errata and Clarifications for Third Printing of
Introduction to Stochastic Search and Optimization:
Estimation, Simulation, and Control
by J. C. Spall

Please provide corrections or suggestions to **James C. Spall**. To determine if a copy of the book is the third printing check the last digit at the bottom of page iv near the front.

CHAPTER 4

p. 107, lines 7 – 9 of Condition B.2: $\delta(\eta)$ and δ_0 should be constrained to be strictly positive. Hence the relevant statements should read: "....there exists a $\delta(\eta) > 0$ such that...." and "....there exists a $\delta_0 > 0$ such that...."

CHAPTER 10

p. 270 (paragraphs 2 and 3): Several modifications to the discussion are required to accommodate the fact that the Markov chain is *not* irreducible (because a GA with elitism cannot move to a population whose best fitness value is lower than the current best value). However, the key conclusion discussed in the current text is unchanged: namely, the chain *does* have a unique limiting value $\overline{\boldsymbol{p}}^T$ with $\sum_{i \in J} \overline{p}_i = 1$ because the GA is always saving the best chromosome encountered.

CHAPTER 13

p. 344: In the fourth line of the second full paragraph, "... n/n_T values for MSE(m)..." should be replaced by "...multiple values for MSE(m)..."

CHAPTER 14

Exercise 14.13 (clarification): The second sentence should reflect that the diagonals in the covariance matrix are unity (as indicated by the first sentence where the reader is instructed to build on the setting of Exercise 14.12) while the off-diagonals are 0.5. Hence, the second sentence should read: "In the simulated indifference zone selection process, assume that $\text{cov}[y_k(\boldsymbol{\theta}_i), y_k(\boldsymbol{\theta}_j)] = 0.5$ for all k and $i \neq j$."

APPENDIX B

pp. 516–517 (clarification): The basic one-sample results of Section B.1 are not restricted to only the $\mu = 0$ case (although this is the case of interest when applying these results to the two-sample setting of interest in Section B.2).