Errata Sheet

The Design and Analysis of Computer Experiments

by

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pg.2 (line -3): "a computer" *should be* "computer" (thanks to D. Steinberg)

pg.11 (in caption to Figure 1.6): "Subsection 1.2.1" *should be* "Subsection 1.2.3" (thanks to D. Steinberg)

pg. 12 (line -1): `http://www.stat.ohio.edu/~comp_exp` *should be* `http://www.stat.ohio-state.edu/~comp_exp`

pg. 30 (in caption to Figure 2.2): "all points on the circle have the same correlation" *should be* "all points on the circle have the same correlation with the origin" (with thanks to D. Steinberg)

pg. 49 (line 2): "naíve" *should be* "naive"

pg. 52 (line 14, begins with **Proof:**): "Fix an arbitrary unbiased predictor" *should be* "Fix an arbitrary predictor"

pg. 54 (1 line above Equation 3.2.10): "Theorems 3.2.1 and B.1.2" *should be* "Theorem 3.2.1 and Lemma B.1.2"

pg. 54 (7 lines after Equation 3.2.10): "based the" *should be* "based on the" (with thanks to D. Steinberg)

pg. 54 (the line after Equation 3.2.11): "minimum MSPE of" *should be* "minimum MSPE predictor of" (with thanks to E. Leatherman)

pg. 58 (Equation 3.2.14) $E\{Y_1^2/12\}$ *should be* $E\{Y_1^4/12\}$ (with thanks to E. Leatherman)

pg. 62 (line above Equation 3.3.2): "has" *should be* "have" (with thanks to D. Steinberg)

pg. 67 Equation (3.3.16): *should be*

$$(n-p)\log\left(\widetilde{\sigma_Z^2}\right) + \log\left(\det(\boldsymbol{R}(\boldsymbol{\psi}))\right) + \log\left(\det\left(\boldsymbol{F}^\top\left(\boldsymbol{R}(\boldsymbol{\psi})\right)^{-1}\boldsymbol{F}\right)\right) .$$

pg. 68 Equation (3.3.17): $=$ *should be* $\equiv$ (with thanks to Peter Marcy)

pg. 68, line above Equation (3.3.18): "The minimum MSPE predictor is by" *should be* "Thus the minimum MSPE predictor is" (with thanks to Erin Leatherman)

pg. 71 (line 2): "eight" *should be* "six" (with thanks to E. Leatherman, Dex Whittinghill)

pg.73 (line 8): "effect" *should be* "affect" (with thanks to D. Steinberg)

pg. 76 t14: *Change* "should be not be" *to* " should not be"

pg. 84 (line -2): "more frequently for large n" *should be* "less frequently for large n" (with thanks to D. Steinberg)

pg. 88: All inverses mentioned in Theorem 4.1.1 must exist in order for the conclusion to hold. (with thanks to D. Steinberg)

pg. 89 Equation (4.1.7): $[\boldsymbol{\beta}] \sim 1$ *should be* $[\boldsymbol{\beta}] \propto 1$ (with thanks to Peter Marcy)

pg. 89 (line -2): "derive posterior" *should be* "derive the posterior" (with thanks to D. Steinberg) pg. 93: (final displayed equation): $\sigma^2_{0|n}(\boldsymbol{x}_0)$ *should be* $\sigma_{0|n}(\boldsymbol{x}_0)$ (with thanks to Peter Marcy)

pg. 104: (third line below first displayed equation): $y_{1+m}(\cdot) = y^m(\cdot)$ *should be* $y_m(\cdot) = y^d(\cdot)$ (with thanks to Peter Marcy)

pg. 104 (2nd line above Equation (4.2.6)): $\text{Cov}\{Y(\boldsymbol{x}^1), Y_{(j)}(\boldsymbol{x}^2)\} = R(\boldsymbol{x}^1, \boldsymbol{x}^2)$ *should be* $\text{Cov}\{Y(\boldsymbol{x}^1), Y_{(j)}(\boldsymbol{x}^2)\} = \sigma^2_Z R(\boldsymbol{x}^1, \boldsymbol{x}^2)$ (with thanks to Peter Marcy)

pg. 104 Equation (4.2.6): $\frac{\partial R(\boldsymbol{x}^1, \boldsymbol{x}^2)}{\partial \boldsymbol{x}^2_j}$ *should be* $\frac{\partial R(\boldsymbol{x}^1, \boldsymbol{x}^2)}{\partial x^2_j}$

pg. 104 Equation (4.2.7): $\frac{\partial^2 R(\boldsymbol{x}^1, \boldsymbol{x}^2)}{\partial \boldsymbol{x}^1_i \partial \boldsymbol{x}^2_j}$ *should be* $\frac{\partial^2 R(\boldsymbol{x}^1, \boldsymbol{x}^2)}{\partial x^1_i \partial x^2_j}$

pg. 105-106 :

$$\begin{pmatrix} 1 & \boldsymbol{r}_1^\top & \tau_2\, \boldsymbol{r}_{12}^\top & \cdots & \tau_m\, \boldsymbol{r}_{1m}^\top \\ \boldsymbol{r}_1 & \boldsymbol{R}_1 & \tau_2\, \boldsymbol{R}_{12} & \cdots & \tau_m\, \boldsymbol{R}_{1m} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ \tau_m\, \boldsymbol{r}_{1m} & \tau_m\, \boldsymbol{R}_{1m}^\top & \tau_m\, \boldsymbol{R}_{2m}^\top & \cdots & \tau_m^2 \boldsymbol{R}_m \end{pmatrix},$$

respectively, where $\tau_i = \sigma_i/\sigma_1$, $2 \le i \le m$,

should be

$$\begin{pmatrix} 1 & \boldsymbol{r}_1^\top & \tau_2\, \boldsymbol{r}_{12}^\top & \cdots & \tau_m\, \boldsymbol{r}_{1m}^\top \\ \boldsymbol{r}_1 & \boldsymbol{R}_1 & \tau_2\, \boldsymbol{R}_{12} & \cdots & \tau_m\, \boldsymbol{R}_{1m} \\ \tau_2\, \boldsymbol{r}_{12} & \tau_2\, \boldsymbol{R}_{12} & \tau_2^2 \boldsymbol{R}_2 & \tau_2\tau_3 \boldsymbol{R}_{23} & \tau_2\tau_m \boldsymbol{R}_{2m} \\ \vdots & \vdots & \vdots & \ddots & \vdots \\ \tau_m\, \boldsymbol{r}_{1m} & \tau_m\, \boldsymbol{R}_{1m}^\top & \tau_2\tau_m\, \boldsymbol{R}_{2m}^\top & \cdots & \tau_m^2 \boldsymbol{R}_m \end{pmatrix},$$

respectively, where $\tau_i = \sigma_i/\sigma_1$, $2 \le i \le m$ so that each $\boldsymbol{R}_{ij}$ with $2 \le i \ne j \le m$ is multiplied by $\tau_i \tau_j$, and

pg. 106 (2nd line above Equation (4.2.6)): "$\boldsymbol{F}$ and $\boldsymbol{\beta}$ are as in (4.29)" *should be* "$\boldsymbol{F}$ is the matrix in (4.2.9) with the first row omitted" (with thanks to Peter Marcy)

pg. 150 (line 3): "nonredundancy" *should be* "redundancy" (with thanks to D. Steinberg)

pg. 266 (t7): Report LA-UR-00-2915 Sandia Laboratories *should be* Report LA-UR-00-2915 Los Alamos National Laboratory

pg. 266 (b11): Sacks, J. Schiller, S. B. and Welch, W. J. (1992) *should be* Sacks, J. Schiller, S. B. and Welch, W. J. (1989) (with thanks to Leo Bastos)

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