Errata for Baker, F. B., & Kim, S.-H. (2004). *Item response theory: Parameter estimation techniques* (2nd ed.). New York: Dekker.

October 29, 2008

Preamble

Page	Line	In place of	Read
XII	32	Hambleton, R. K. (1983).	Hambleton, R. K. (Ed.). (1983).

Chapter 1

Page	Line	In place of	Read
4	11	$-\infty \leq \beta_i \leq \infty$	$-\infty < \beta_i < \infty$
4	13	$-\infty \leq \alpha_i \leq \infty$	$-\infty < \alpha_i < \infty$
12	Fig. 1.5	$Z_{ij}^{'}$	$Z_i^{'}$
14	3	see for example	see, for example,
17	Fig. 1.7	$Z_{ij}^{'}$	$Z_i^{'}$
17	Fig. 1.7	$\beta_i = .6$	$\beta_i = 0.6$
19	27	$\beta_i = \theta = .6$	$\beta_i = \theta = 0.6$

Chapter 2

Page	Line	In place of	Read
24	Fig. 2.1	$\hat{\alpha}_i = .9110$, $\hat{\beta}_i = -.5373$.	$\hat{\alpha}_i = 0.9110$, $\hat{\beta}_i = -0.5373$.
24	14	Psychometrics	psychometrics
28	13	$h_j^2 P_j Q_j$	$h_j^2/(P_j Q_j)$
29	5	bracket	parentheses
30	9	$\hat{\lambda}$, $\hat{\lambda}$	$\hat{\zeta}$, $\hat{\lambda}$
30	27	$\Delta\hat{\lambda}_1 \frac{\partial^2 L}{\partial\zeta\partial\lambda}(\hat{\zeta}_1, \hat{\lambda}_1)$	$\Delta\hat{\zeta}_1 \frac{\partial^2 L}{\partial\zeta\partial\lambda}(\hat{\zeta}_1, \hat{\lambda}_1)$
31	(2.8)	$\begin{bmatrix} \widehat{\Delta\hat{\zeta}} \\ \widehat{\Delta\hat{\lambda}} \end{bmatrix}_t$	$\begin{bmatrix} \Delta\hat{\zeta} \\ \Delta\hat{\lambda} \end{bmatrix}_t$
33	12	$h_j^2 P_j Q_j$	$h_j^2/(P_j Q_j)$
35	7	divided by	divided by $\sum_{j=1}^{k} f_j W_j$,
35	(2.14)	$\sum_{j=1}^{k} f_j W_j.$	$\sum_{j=1}^{k} f_j W_j$
38	(2.17)	$P_i = P(\theta_i)$	$P_j = P(\theta_j)$
40	20	$(p_j - P_j)/P_j Q_j$	$(p_j - P_j)/(P_j Q_j)$
41	(2.21)	$\sum_{j=1}^{k} f_j v_j$	$\sum_{j=1}^{k} f_j W_j v_j$
41	(2.21)	$\sum_{j=1}^{k} f_j W_j.$	$\sum_{j=1}^{k} f_j W_j$
47	8	$\left[\frac{r_j}{P_j} - \frac{(f_j - r_j)}{Q_j^*}\right]$	$\left[\frac{r_j}{P_j} - \frac{(f_j - r_j)}{Q_j}\right]$
47	11	$P_j^* Q_j^*$	$P_j^* Q_j^*/(P_j Q_j)$
47	(2.24)	$(\theta_i - b)$	$(\theta_j - b)$
47	17	$(\theta_i - b)$	$(\theta_j - b)$
47	18	$(\theta_i - b)$	$(\theta_j - b)$
49	1	$P_j^* Q_j^*/[P_j Q_j (1 - c)]$	$[P_j^* Q_j^*/(P_j Q_j)](1 - c)$
50	2	$\left[\frac{Q_j}{1 - c} - \frac{cQ_j}{1 - c}\right]$	$\left[\frac{Q_j}{1 - c} - P_j - \frac{cQ_j}{1 - c}\right]$
50	3	$(-P_j - p_j + P_j)$	$\left[P_j - (p_j - P_j)\left(1 - \frac{P_j}{Q_j}\right)\right]$
50	4	p_j	$[P_j - (p_j - P_j)(1 - P_j/Q_j)]$
50	10	$\left. - (f_j p_j - f_j P_j)\frac{(P_j - c)}{P_j(1 - c)}\right\}$	$\left. - (f_j p_j - f_j P_j)\frac{(P_j - c)}{P_j(1 - c)}\frac{1}{(\theta_j - b)}\right\}$
50	12	$+\frac{(P_j - c)}{P_j(1 - c)}$	$+\frac{(P_j - c)}{P_j(1 - c)}\frac{1}{(\theta_j - b)}$
50	14	$+\frac{(P_j - c)}{P_j(1 - c)}$	$+\frac{(P_j - c)}{P_j(1 - c)}\frac{1}{(\theta_j - b)}$
51	14	$\frac{Q_j}{P_j}$	$P_j Q_j$
51	16	$\frac{Q_j}{P_j}$	$P_j Q_j$
51	16	$\left[\frac{P_j^*}{P_j}\right]$	$\left[\frac{P_j^*}{P_j}\right]^2$
52	5	$\left[\frac{P_j^*}{P_j}\right]$	$\left[\frac{P_j^*}{P_j}\right]^2$
52	10	L_{23}	$E(L_{23})$
55	8	$\sum_{j=1}^{n}$	$\sum_{j=1}^{k}$
55	12	Table 2.3	Table 2.2
56	3	χ_j	$\chi^2 = \sum_{j=1}^{k} \chi_j^2$
56	21	was used	estimation was used
59	3	$1/2f_j$	$1/(2f_j)$
59	4	$1 - (1/2f_j)$	$1 - [1/(2f_j)]$
60	35	scale the	scale. The
61	13	three-parameter that	three-parameter model that
61	19	two- parameter	two-parameter

Chapter 3

Page	Line	In place of	Read
63	10	known; Second,	known. Second,
63	12	basis; Third,	basis. Third,
63	23	$(u_{1j}, u_{2j}, u_{3j}, \ldots, u_{nj} \mid \theta_j)$	$(u_{1j}, u_{2j}, u_{3j}, \ldots, u_{nj})$
64	31	log- likelihood	log-likelihood
65	3	$h_{ij}^2/P_{ij}Q_{ij}$	$h_{ij}^2/(P_{ij}Q_{ij})$
65	15	$-\sum_{j=1}^{n} \lambda_i^2 W_{ij}$	$-\sum_{i=1}^{n} \lambda_i^2 W_{ij}$
65	(3.9)	$\frac{1}{\sum_{j=1}^{n} \lambda_i^2 W_{ij}} = \frac{1}{\sum_{j=1}^{n} \alpha_i^2 W_{ij}}$	$\frac{1}{\sum_{i=1}^{n} \lambda_i^2 W_{ij}} = \frac{1}{\sum_{i=1}^{n} \alpha_i^2 W_{ij}}$
67	3	$-\sum_{j=1}^{n} \lambda_i^2 W_{ij}$	$-\sum_{i=1}^{n} \lambda_i^2 W_{ij}$
67	(3.14)	$\frac{1}{\sum_{j=1}^{n} \lambda_i^2 W_{ij}} = \frac{1}{\sum_{j=1}^{n} \alpha_i^2 W_{ij}}$	$\frac{1}{\sum_{i=1}^{n} \lambda_i^2 W_{ij}} = \frac{1}{\sum_{i=1}^{n} \alpha_i^2 W_{ij}}$
68	5	P_i	P_{ij}
68	6	P_i	P_{ij}
69	(3.15)	$\sum_{j=1}^{n} a_i W_{ij}$	$\sum_{i=1}^{n} a_i W_{ij}$
69	9	”guessing”	“guessing”
69	(3.16)	$\sum_{j=1}^{n} \alpha_i^2$	$\sum_{i=1}^{n} a_i^2$
70	8	Birnbaum 1957,	Birnbaum, 1957,
70	34	$\partial P_i/\partial\theta$	$\partial P_i(\theta)/\partial\theta$
71	(3.19)	$\sum_{j=1}^{n} I_i(\theta) = \sum_{j=1}^{n}$	$\sum_{i=1}^{n} I_i(\theta) = \sum_{i=1}^{n}$
72	37	$\alpha_i = .9$, $\beta_i = 0.$	$\alpha_i = 0.9$, $\beta_i = 0.0.$
72	37	$\beta_i = 0$	$\beta_i = 0.0$
74	5	Table 2.2	Table 2.1
74	14	”compensation”	“compensation”
74	(3.25)	$.64\alpha_i^2$	$0.64\alpha_i^2$
74	33	$.724\alpha_i^2$	$0.724\alpha_i^2$
75	(3.28)	$\theta\mathrm{max}$	$\theta_{\max}$
75	11	$c_i = 0.2$	$c_i = .2$
75	15	$.8^2$	0.8^2
75	16	.64	0.64
75	17	.1090	0.1090
76	Fig. 3.2	$c_i = 0.2$	$c_i = .2$
77	18	$[P_i(\theta) + Q_i(\theta)$	$[P_i(\theta) + Q_i(\theta)]$
77	20	if	is
79	8	.2.	0.2.
79	10	$-.5$ to $+.5$	-0.5 to $+0.5$
80	13	models,	model,

Chapter 4

Page	Line	In place of	Read
84	22	Panachapakesan	Panchapakesan
85	25	$[u_{ij}]$ and θ is	$[u_{ij}]$. Let ξ be the vector of all item parameters and θ be
84	(4.1)	$\text{Prob}(U\|\theta)$	$\text{Prob}(U\|\theta, \xi)$
84	(4.2)	$\text{Prob}(U\|\theta)$	$\text{Prob}(U\|\theta, \xi)$
84	(4.2)	$P_i^{u_{ij}} Q_i^{1-u_{ij}}$	$P_{ij}^{u_{ij}} Q_{ij}^{1-u_{ij}}$
84	(4.3)	$\text{Prob}(U\|\theta)$	$\text{Prob}(U\|\theta, \xi)$
85	(4.6)	$\frac{\partial L}{\partial \theta_i}$	$\frac{\partial L}{\partial \theta_j}$
85	(4.6)	$\sum_{j=1}^{N} u_{ij} \frac{1}{P_{ij}} \frac{\partial P_{ij}}{\partial \theta_i} \sum_{j=1}^{N} (1-u_{ij}) \frac{1}{Q_{ij}} \frac{\partial Q_{ij}}{\partial \theta_i}$	$\sum_{i=1}^{n} u_{ij} \frac{1}{P_{ij}} \frac{\partial P_{ij}}{\partial \theta_j} \sum_{i=1}^{n} (1-u_{ij}) \frac{1}{Q_{ij}} \frac{\partial Q_{ij}}{\partial \theta_j}$
85	23	$\frac{\partial^2 L}{\partial \zeta_j \lambda i}$	$\frac{\partial^2 L}{\partial \zeta_i \partial \lambda i}$
85	23	$\frac{\partial^2 L}{\partial \theta_j \zeta_i}$	$\frac{\partial^2 L}{\partial \theta_j \partial \zeta_i}$
85	23	$\frac{\partial^2 L}{\partial \theta_j \lambda_i}$	$\frac{\partial^2 L}{\partial \theta_j \partial \lambda_i}$
86	(1,N)	$\frac{\partial^2 L}{\partial \lambda_1 \partial \theta_N}$	$\frac{\partial^2 L}{\partial \zeta_1 \partial \theta_N}$
86	(3,N)	$\frac{\partial^2 L}{\partial \lambda_2 \partial \theta_N}$	$\frac{\partial^2 L}{\partial \zeta_2 \partial \theta_N}$
86	(5,N)	$\frac{\partial^2 L}{\partial \lambda_n \partial \theta_N}$	$\frac{\partial^2 L}{\partial \zeta_n \partial \theta_N}$
86	(7,N)	$\frac{\partial^2 L}{\partial \theta_2 \partial \theta_N}$	$\frac{\partial^2 L}{\partial \theta_1 \partial \theta_N}$
87	38	Table 4.3	Figure 4.3
90	(4.8)	$\frac{\partial^2 L}{\partial \zeta_j \lambda_i}$	$\frac{\partial^2 L}{\partial \zeta_i \partial \lambda_i}$
90	(4.8)	$\frac{\partial^2 L}{\partial \lambda_i \zeta_i}$	$\frac{\partial^2 L}{\partial \lambda_i \partial \zeta_i}$
91	42	$\hat{\lambda}_i$ and	$\hat{\lambda}_i$, and
92	28	$\text{Prob}(U\|\theta) = \prod_{g=1}^{G}$	$\text{Prob}(U\|\theta, \xi) = \prod_{g=1}^{G} \begin{pmatrix} f_g \\ r_g \end{pmatrix}$
93	14	$(u_{ij} - P_{ij})/P_{ij}Q_{ij}$	$(u_{ij} - P_{ij})/(P_{ij}Q_{ij})$
93	14	$(p_{ig} - P_{ig})/P_{ig}Q_{ig}$	$(p_{ig} - P_{ig})/(P_{ig}Q_{ig})$
94	11	Panachapakesan	Panchapakesan
94	19	$\hat{\alpha}_i$, $\hat{\beta}_i$,	$\hat{a}_i$, $\hat{b}_i$,
94	26	Panachapakesan	Panchapakesan
96	(4.12)	$\text{Prob}(V\|\theta)$	$\text{Prob}(V\|\theta, \xi)$
96	27	filled- in	filled-in
97	23	.5 units	0.5 units
104	30	1,999	1999

Chapter 5

Page	Line	In place of	Read
109	34	follows: the	follows: The
110	20	U_{ij}	U
113	6	$\log \delta_j \quad -\infty < \beta_j < \infty$	$\log \delta_i \quad -\infty < \beta_i < \infty$
114	13	Figure 5.3.	Figure 5.2.
118	3	$U_{(n-1)j}$	$U_{n-1,j}$
118	13	$(\epsilon_2 \epsilon_3 \cdots \epsilon_{r+1})$	$(\epsilon_1 \cdots \epsilon_{r-1} \epsilon_{r+1})$
119	22	Table 5.2.	Table 5.3.
120	20	$P((u_{ij})\|u_{.j} = r, \epsilon_1, \epsilon_2, \ldots, \epsilon_n)$	$P((u_{ij})\|u_{.j} = r, \eta_j, \epsilon_1, \epsilon_2, \ldots, \epsilon_n)$
126	28	Rasch, 1960,	Rasch, 1960, p. 177,
131	11	$P((u_{ij}\|u_{.j} = r_j)$	$P((u_{ij}\|u_{.j} = r_j, (\beta_i))$
133	21	$L_{hh} = \frac{\partial^2}{\partial \beta_h^2}$	$L_{hh} = \frac{\partial^2 L}{\partial \beta_h^2} = \sum_{r=1}^{n-1} f_r \frac{\partial^2}{\partial \beta_h^2} \log \gamma(r, \beta)$, where $\frac{\partial^2}{\partial \beta_h^2} \log \gamma(r, \beta)$
133	25	$L_{hk} = \frac{\partial^2}{\partial \beta_h \partial \beta_k}$	$L_{hk} = \frac{\partial^2 L}{\partial \beta_h \partial \beta k} = -\sum_{r=1}^{n-1} f_r \frac{\partial^2}{\partial \beta_h \partial \beta_k} \log \gamma(r, \beta)$, where $\frac{\partial^2}{\partial \beta_h \partial \beta_k} \log \gamma(r, \beta)$
138	7	$\partial^2 L / \partial \theta_j \partial \beta_i$	$\partial^2 L / (\partial \theta_j \partial \beta_i)$
139	(5.55)	$-s_i-$	$-s_i+$
141	8	$\hat{\theta}_g^(t)$	$\hat{\theta}_g^{(t)}$
141	24	Since log	Since
143	29	$< .05$	< 0.05
143	37	$< .05$	< 0.05
144	1	$< .025$	< 0.025
144	4	$< .0001$	< 0.0001
146	18	parameters of under	parameters under
146	42	.08 to .12	0.08 to 0.12
146	43	.08 or .09	0.08 or 0.09
147	3	.03	0.03
147	24	146	138
149	23	5.65	5.66
151	9	Rash	Rasch
152	22	Trauba,	Traub,
152	35	Hartel	Haretel
153	9	Hartel	Haretel
153	13	Vijiver	Vijver

Chapter 6

Page	Line	In place of	Read
161	13	$\frac{\partial}{\partial a_i}[P_i(\theta)^{u_{ij}}]Q_i(\theta)^{1-u_{ij}}$	$Q_i(\theta)^{1-u_{ij}}\frac{\partial}{\partial a_i}[P_i(\theta)^{u_{ij}}]$
162	3	$h \neq i$ rather than i	i rather than $h \neq i$
163	24	$= \frac{1}{Q_i(\theta_j)}$	$= -\frac{1}{Q_i(\theta_j)}$
165	5	$P_i^*(X_k)Q_i^*(X_k)/P_i(X_k)Q_i(X_k)$	$P_i^*(X_k)Q_i^*(X_k)/[P_i(X_k)Q_i(X_k)]$
167	(6.20)	$\prod_{i=1}^{n} u_{ij}$	$u_{ij}\prod_{i=1}^{n}$
172	42	(.89)	(0.89)

Chapter 7

Page	Line	In place of	Read
179	22	hyperparameter	hyperparameters
180	6	estimate	estimates
184	3	: the	: The
184	27	$P_i^*(\theta_j)Q_i^*(\theta_j)/P_i(\theta_j)Q_i(\theta_j)$	$P_i^*(\theta_j)Q_i^*(\theta_j)/[P_i(\theta_j)Q_i(\theta_j)]$
187	(7.19)	$\mu_\alpha = \exp(\mu_\alpha + 0.5\sigma_\alpha)$	$\mu_a = \exp(\mu_\alpha + 0.5\sigma_\alpha^2)$
187	(7.19)	$\sigma_\alpha^2 = \exp(2\mu_\alpha + \sigma_\alpha)$	$\sigma_a^2 = \exp(2\mu_\alpha + \sigma_\alpha^2)$
190	5	**M step**	**M-step**
190	(7.25)	$\frac{[P_i(X_k)-c_i]^2}{(1-c_i)^2}\frac{Q_i(X_k)}{P_i(X_k)}$	$\frac{P_i(X_k)-c_i}{(1-c_i)^2}\frac{Q_i(X_k)}{P_i^2(X_k)}$
190	(7.27)	$\frac{Q_i(X_k)}{P_i(X_k)}$	$\frac{Q_i(X_k)}{P_i^2(X_k)}$
192	5	the prior distribution	the exchangeable prior distribution
192	(7.36)	$P_i(\theta)^{u_{ij}}Q_i(\theta)^{1-u_{ij}}$	$P_i(\theta_j)^{u_{ij}}Q_i(\theta_j)^{1-u_{ij}}$
192	(7.37)	$\left(\frac{\theta_j-\mu_\theta}{\sigma_j^2}\right)$	$\left(\frac{\theta_j-\mu_\theta}{\sigma_\theta^2}\right)$
196	25	faster,in	faster, in
197	29	0.75 and 0.25	0.75, and 0.25
199	15	.25	0.25
199	16	.25	0.25
201	21	$.25^2$	0.25^2
202	4	were	where

Chapter 8

Page	Line	In place of	Read
209	17	item and will always be less than .5	item
211	20	$G \times n$	$G \times m$
212	(8.4)	$P_{g1}^{r_1} P_{g2}^{r_2}$	$P_{g1}^{r_{g1}} P_{g2}^{r_{g2}}$
213	2	$+\cdots$	$+\cdots+$
213	16, 18	P_{gk}^*, $P_{g,k+1}^*$	P_{gk}, $P_{g,k+1}$
213	21	P_{g1}^*, P_{g2}^*	P_{g1}, P_{g2}
213	23	$P_{g,m-1}^*$, P_{gm}^*	$P_{g,m-1}$, P_{gm}
218	(8.7)	$[\ldots L_\lambda]$	$[\ldots L_\lambda]_{(t)}$
220	35	$\partial P_i(\theta)/\partial\theta)$	$\partial P_i(\theta)/\partial\theta$
224	6–7	$\theta = -0.5$ and	$\theta = 0.0$
224	10	$\theta = -0.5$ and $\theta = +1.0$	$\theta = -3.0$ and $\theta = 3.0$
224	11	bimodal, with a pronounced through between the two modes	unimodal
225	1	Equation 8.11	Equation 8.21

Chapter 9

Page	Line	In place of	Read
237	9	0.34	-0.34
237	(9.5)	two $e^{Z_1} + e^{Z_1}$	two $e^{Z_1} + e^{Z_2}$
237	34	$= P(\theta_j)P_1(\theta_j =$	$= P(\theta_j)$ and $P_1(\theta_j) =$
240	1	$\frac{1}{m}$ in the $(m, 2)$ element in the matrix	$-\frac{1}{m}$
244	13	$(\theta_{g1}, \theta_{g2}, \ldots, \theta_{gm})$	$(r_{g1}, r_{g2}, \ldots, r_{gm})$
245	8	$\frac{\partial Z_{k+1}}{\partial \gamma_k}$	$\frac{\partial Z_{k+1}}{\partial \xi_k}$
246	17	$= -$	$=$
254	1	$P_{jm}P_{jk}$ in the (m, k) element in the matrix	$-P_{jm}P_{jk}$

Chapter 10

Page	Line	In place of	Read
278	(10.49)	$\partial\zeta_i\lambda_i$, $\partial\lambda_i\zeta_i$	$\partial\zeta_i\partial\lambda_i$, $\partial\lambda_i\partial\zeta_i$

Chapter 11

Page	Line	In place of	Read
288	11	as	as:
289	1	$\frac{\partial^2 \log L}{\partial \lambda_i^2}$.	$\frac{\partial^2 \log L}{\partial \lambda_i^2}$

Chapter 12

Page	Line	In place of	Read
303	12	Best, & Gilks	Best, and Gilks

Page	Line	In place of	Read
313	25	one.	one, respectively.
314	18	`1040` and `1042`	`1104` and `1142`
314	27	level,	levels,
315	30	level,	levels,
316	4	level	levels
317	# 1230	`GOTO 1350`	`GOTO 1360`
319	8	a one-,	one-,
319	16	slopes and	slopes, and
320	33	tenth item	tenth items
325	30	estimate.	estimates.
334	28	$\bar{n}_{ik}$	$\bar{n}_{ik}$ (i.e., $\bar{f}_{ik}$)
351	23	(−.282)	(−0.282)
373	17	`SUM= .1697909`	`SUM= .2199019`
373	24	`THETA= .4874895 DELTA= -8.748952E-02`	`THETA= .5133106 DELTA= -.1133106`
373	29	`DELTA= -.0047`	`DELTA= -.000026`
373	32	`THETA= .5344664 DELTA= -4.697688E-02`	`THETA= .5135719 DELTA= -2.612587E-04`
373	33	`THETA ESTIMATE= .5344664`	`THETA ESTIMATE= .5135719`
378	# 140	`SDS=0:FDS=0:PRINT`	`PRINT`
378	# 150	`MAXIT`	`MAXIT:SDS=0:FDS=0`
379	# 5010	`FDS=FDS+FTERM`	`FDS=FDS+A(I)*FTERM`
415	38	$\mu_2 = 1$	$\mu_2 = 0$
439	32	total possible	total number of possible
440	4	these variables where theses	the variables where they
440	19	1 indicates	0 indicates
440	20	0 indicates	1 indicates
440	31	calculated	are calculated
446	49	`PI)))`	`PI*S2)))`
456	5	(1988)	(1989)
457	21	`.5`	`0.5`
457	37	following:	followings:

Page	Line	In place of	Read
465	No. 13	(1978)	(1978a)
465	No. 17	analysis,	analysis
466	No. 24	Madison, WI.	Madison.
468	No. 77	*Function and Allied Tables*	*function and allied tables*
471	After No. 135	Add a reference	Holland, P., & Wainer, H. (Eds.). (1993). *Differential item functioning.* Hillsdale, NJ: Erlbaum.
473	No. 176	Clogg, C. C.	Clogg, C. C.,
474	No. 193	Minneapolis, MN:	Minneapolis:
475	After No. 215	Add a reference	Mislevy, R. J., & Bock, R. D. (1990). BILOG 3: Item analysis and test scoring with binary logistic models (2nd ed.) [Computer software and manual]. Mooresville, IN: Scientific Software.
476	No. 235	Chicago, IL:	Chicago:
476	After No. 235	Add a reference	Press, W. H., Teukolsky, S. A., Vetterling, W. T., & Flannery, B. P. (1992). *Numerical recipes in Fortran: The art of scientific computing* (2nd ed.). New York: Cambridge University Press.
476	No. 138	Danish	The Danish
476	No. 239	psychology).	psychology.
476	No. 241	Lazarsfeld ,	Lazarsfeld
476	No. 249	Ross, J. ,	Ross, J.,
477	No. 258	Sanathanan, L.	Sanathanan, L.,
477	No. 261	Spada,	Spada
477	After No. 267	Add a reference	Sprott, J. C. (1991). *Numerical recipes routines and examples in BASIC.* New York: Cambridge University Press.
478	No. 284	Thissen, D ,	Thissen, D.,
478	No. 291	Steinberg, L,	Steinberg, L.,
479	No. 292	Steinberg, L,	Steinberg, L.,
479	No. 293	Steinberg, L,	Steinberg, L.,