

Erratum to: Solving nonlinear problems by Ostrowski–Chun type parametric families

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The following errors were inadvertently overlooked in the original publication, and it has been corrected with this erratum.

Page 8. The first line of the formula (13) says: “ $y^{(k+1)} = x^{(k)} - \alpha[F'(x^{(k)})]^{-1}F(x^{(k)})$ ”, replace by $y^{(k)} = x^{(k)} - \alpha[F'(x^{(k)})]^{-1}F(x^{(k)})$, and the last two lines of same formula are repetitions: delete.

Page 9. Line 13 says: “where $e_k = x^{(k)} - \xi$ and $C_q = \left(\frac{1}{q!}\right)[f'(\xi)]^{-1}F^{(q)}(\xi)$, $q \geq 2$.” Replace by $e_k = x^{(k)} - \xi$ and $C_q = \left(\frac{1}{q!}\right)[F'(\xi)]^{-1}F^{(q)}(\xi)$, $q \geq 2$.

Page 10. The line 20 says: “ $e_{k+1} = H'_2e_k^2 + H'_3e_k^3 + H'_4e_k^4 + \mathcal{O}[e_k^5]$ ”. Replace by $e_{k+1} = H'_2e_k^2 + H'_3e_k^3 + H'_4e_k^4 + \mathcal{O}[e_k^5]$.

The online version of the original article can be found under doi:[10.1007/s10910-014-0432-z](https://doi.org/10.1007/s10910-014-0432-z).

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Page 10. The line 21 says: “where $H'_1 = \frac{1}{a_1}(1 + a_1(b_1 - 1))C_2$. Replace by: where $H'_2 = \frac{1}{a_1}(1 + a_1(b_1 - 1))C_2$.”

Page 11. The line 6 says: “ $G(x^{(k)}, y^{(k)}) = \frac{1}{a_1}[(1 + a_1b_2 - 2a_1)I - a_1(b_2 - 2)[F'(x^{(k)})]^{-1}[x^{(k)}, y^{(k)}; F]]^{-1}$ ”. Replace by: $G(x^{(k)}, y^{(k)}) = \frac{1}{a_1}[(1 + a_1b_2 - 2a_1)I - a_1^2(b_2 - 2)[F'(x^{(k)})]^{-1}[x^{(k)}, y^{(k)}; F]]^{-1}$.”

Page 11. The line 19 says: “ $x^{(k+1)} = y^{(k)} - (I - 2[F'(x^{(k)})]^{-1}[x^{(k)}, y^{(k)}; F])[F'(x^{(k)})]^{-1}F(y^{(k)})$ ”. Replace by $x^{(k+1)} = y^{(k)} - (3I - 2[F'(x^{(k)})]^{-1}[x^{(k)}, y^{(k)}; F])[F'(x^{(k)})]^{-1}F(y^{(k)})$.”

Page 11. The line 25 says: “ $x^{(k+1)} = y^{(k)} - \frac{1}{a_1}[(1 - a_1)I + a_1[F'(x^{(k)})]^{-1}[x^{(k)}, y^{(k)}; F]]^{-1}$ ”. Replace by $x^{(k+1)} = y^{(k)} - \frac{1}{a_1}[(1 - a_1)I + a_1^2[F'(x^{(k)})]^{-1}[x^{(k)}, y^{(k)}; F]]^{-1}$ ”

Page 11. The line 26 says: “ $F(x^{(k)}) + \frac{1}{a_1}[(2a_1 - 1)I - [F'(x^{(k)})]^{-1}[x^{(k)}, y^{(k)}; F]][F'(x^{(k)})]^{-1}F(y^{(k)})$ ”. Replace by $F(x^{(k)}) + \frac{1}{a_1}[(2a_1 - 1)I - [F'(x^{(k)})]^{-1}[x^{(k)}, y^{(k)}; F]][F'(x^{(k)})]^{-1}F(y^{(k)})$.”

Page 15. The line 1 says: “Table 3 Test functions and results for nonlinear systems, F_1 and F_2 ”. Replace by: Table 3 Test functions and results for nonlinear functions, F_1 and F_2 .”

Page 15. The line 3 says: “ $F_1(x_1, x_2) = (\exp x_1 \exp x_2 + x_1 \cos x_2, x_1 + x_2 - 1)x^{(0)} = (3, -2)$ and $\xi_1 \approx$ ”. Replace by $F_1(x_1, x_2) = (\exp x_1 \exp x_2 + x_1 \cos x_2, x_1 + x_2 - 1)x^{(0)} = (3, -2)$ and $\xi_1 \approx$.”

Page 15. The line 4 says: “ $3.4675009642402, \xi_2 \approx -2.4675009642402$ ”. Replace by: $3.4706309600316, \xi_2 \approx -2.4706309600316$.”

Page 16. The line 1 says: “Table 4 Test functions and results for nonlinear systems, F_3 and F_4 ”. Replace by: Table 3 Test functions and results for nonlinear functions, F_3 and F_4 .”

Page 16. The line 4 says: “ $-0.8452567390376772; \xi_2 \approx -0.7481414932526368$ ”. Replace by: $-0.8452567390376772, \xi_2 \approx 0.7481414932526368$.”