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Erratum

Erratum to "Note on Some Nonlinear Integral Inequalities and Applications to Differential Equations"

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First, we apologize for the misprints in the original article. Now we correct those misprints.

Page 1, line 2: Between equations and The Gronwall-Bellman insert "Among various types of integral inequalities."

Page 1, line 5: Replace diferential by differential.

Page 2, line 1: Replace of the situation by to the situation.

Page 2, Lemma 2.1: between For $x \in \mathbb{R}_+$, $y \in \mathbb{R}_+$, $1/p + 1/q = 1$, and one has insert "with $p > 1$."

Page 2, Theorem 2.3: Replace and there by "If there."

Page 2, Theorem 2.3: Replace and $u(t)$ satisfy by and the function $u(t)$ satisfies.

Page 3, Proof of Theorem 2.3, line 9: Replace it yields by we obtain.

Page 4, Remark 2.4, line 2: Replace become by becomes.

Page 4, Theorem 2.5, line 1: Replace holds by hold.

Page 4, Theorem 2.5, (2.15): Replace $\int_0^t b(s) \sum_{i=1}^{i=n} h_i(t)(a(t) + p^\star/p)^{(p^\star/p)-1} ds$ by $\int_0^t b(s) \sum_{i=1}^{i=n} h_i(s)(a(s) + p^\star/p)^{(p^\star/p)-1} ds$.

Page 4, Theorem 2.5, (2.16): Replace $\int_0^t b(s) \sum_{i=1}^{i=n} h_i(t)(a(t) + p^\star/p)^{(p^\star/p)-1} ds$ by $\int_0^t b(s) \sum_{i=1}^{i=n} h_i(s)(a(s) + p^\star/p)^{(p^\star/p)-1} ds$.

Page 5,(2.28): Replace $\int_0^t (p^\star/p - 1) b(t) \sum_{i=1}^{i=n} h_i(t)(a(t) + p^\star/p)^{(p^\star/p)-1} ds$ by $\int_0^t (p^\star/p - 1) b(s) \sum_{i=1}^{i=n} h_i(s)(a(s) + p^\star/p)^{(p^\star/p)-1} ds$.

Page 6, (2.29): Replace $\int_0^t (p^\star/p - 1) b(t) \sum_{i=1}^{i=n} h_i(t)(a(t) + p^\star/p)^{(p^\star/p)-1} ds$ by $\int_0^t (p^\star/p - 1) b(s) \sum_{i=1}^{i=n} h_i(s)(a(s) + p^\star/p)^{(p^\star/p)-1} ds$.

Page 6, (2.30): Replace $\int_0^t (p^\star/p - 1)b(t)\sum_{i=1}^{i=n} h_i(t)(a(t)+p^\star/p)^{(p^\star/p)-1}ds$ by $\int_0^t (p^\star/p - 1)b(s)\sum_{i=1}^{i=n} h_i(s)(a(s)+p^\star/p)^{(p^\star/p)-1}ds$.

Page 6, (2.31): Replace $\int_0^t b(t)\sum_{i=1}^{i=n} h_i(t)(a(t)+p^\star/p)^{(p^\star/p)-1}ds$ by $\int_0^t b(s)\sum_{i=1}^{i=n} h_i(s)(a(s)+p^\star/p)^{(p^\star/p)-1}ds$.

Page 6, (2.33): Replace $\int_0^t b(t)\sum_{i=1}^{i=n} h_i(t)(a(t)+p_\star/p)^{(p^\star/p)-1}ds$ by $\int_0^t b(s)\sum_{i=1}^{i=n} h_i(s)(a(s)+p_\star/p)^{(p^\star/p)-1}ds$.

Page 6, (2.34): Replace $\int_0^t b(s)\sum_{i=1}^{i=n} h_i(t)(a(t)+p_\star/p)^{(p^\star/p)-1}ds$ by $\int_0^t b(s)\sum_{i=1}^{i=n} h_i(s)(a(s)+p_\star/p)^{(p^\star/p)-1}ds$.

Page 6, in Theorem 2.6: Replace holds by hold.

Page 6, in Proof: Replace for by For.

Page 7, in Remark 2.7: Replace if by If.

Page 7, in Theorem 2.8: Replace holds by hold.

Page 7, in Theorem 2.8 line 2: Replace nonnegative by positive.

Page 8, in Theorem 2.9: Replace $\partial/\partial s k(t,s)$ by $(\partial/\partial s)k(t,s)$.

Page 12, line 3: Replace tacking account by Taking into account.

Page 12, in Remark 2.10: Replace if by If.

Page 11, (2.63): Replace $\int_0^t (\partial/\partial s)k(t,s)(a(s)+p^\star/p+b(s)v(s))^{p^\star/p}$ by $\int_0^t (\partial/\partial s)k(t,s)\sum_{i=1}^{i=n} h_i(s)(a(s)+p^\star/p+b(s)v(s))^{p^\star/p}$.

Page 12, (3.1): Insert $t \geq t_0$.

Page 12 in (3.2): Replace $\{c + \int_{t_0}^t f(\tau)[((q/p)c + (p-q)/p)\exp\int_{t_0}^t A^*(s)ds + \int_{t_0}^t B^*(s)(\exp\int_s^t A^*(\sigma)d\sigma)ds]d\tau\}^{1/p}$ by $\{c + \int_{t_0}^t f(\tau)[((q/p)c + (p-q)/p)\exp\int_{t_0}^\tau A^*(s)ds + \int_{t_0}^\tau B^*(s)(\exp\int_s^\tau A^*(\sigma)d\sigma)ds]d\tau\}^{1/p}$, $t \geq t_0$.

Page 13, Proof of Theorem 3.1, in (3.4), (3.5), (3.6), and (3.7): Replace $Z(t)$ by $z(t)$.

Page 13 between (3.7) and (3.8): Replace its follow by it follows.

Page 14, in application, line 2: Replace equation by equations.

Page 14, in end of the Section 3: Replace then the result required is found by: using (3.13) in (3.14), we get the required inequality in (3.2).

Page 14 in (3.13): Replace $z(t) \leq c + \int_{t_0}^t f(\tau)[((q/p)c + (p-q)/p)\exp\int_{t_0}^t A^*(s)ds + \int_{t_0}^t B^*(s)(\exp\int_s^t A^*(\sigma)d\sigma)ds]d\tau$, by $z(t) \leq c + \int_{t_0}^t f(\tau)[((q/p)c + (p-q)/p)\exp\int_{t_0}^\tau A^*(s)ds + \int_{t_0}^\tau B^*(s)(\exp\int_s^\tau A^*(\sigma)d\sigma)ds]d\tau$.

Page 14, in (4.1) insert $t > 0$.

Page 14, in (4.2): Replace $\sum_{i=1}^{i=n} h_i(t)u^{p_i}(t)$ by $\sum_{i=1}^{i=n} h_i(t)|u|^{p_i}$.

Page 14, in Example 4.1: Replace p, p_i $(i=1,\ldots,n) \geq 0$ by p, p_i $(i=1,\ldots,n) > 0$.

Page 15, line 2: we estimate the solution $u(t)$ of (4.1).

Page 15 in Proof of Theorem 4.3: Replace (4.5) by this formula $u(t) \leq \{|c|^p + \int_{t_0}^{t} f(\tau)[((q/p)|c|^p + (p-q)/p) \exp \int_{t_0}^{\tau} A^*(s)ds + \int_{t_0}^{\tau} B^*(s)(\exp \int_{s}^{\tau} A^*(\sigma)d\sigma)ds]d\tau\}^{1/p}$.

Page 15 in Proof of Theorem 4.3: Replace $u^p(t) = c^p + \int_{t_0}^{t} f(\tau)[u^q(\tau) + \int_{t_0}^{t} k(\tau,s)u^r(s)ds]d\tau$ by $u^p(t) = c^p + \int_{t_0}^{t} f(\tau)[u^q(\tau) + \int_{t_0}^{\tau} k(\tau,s)u^r(s)ds]d\tau$.

Page 15, Proof of Theorem 4.3: Replace (4.7) by $|u(t)|^p \leq |c|^p + \int_{t_0}^{t} f(\tau)[|u(\tau)|^q + \int_{t_0}^{\tau} k(\tau,s)|u(\tau)|^r ds]d\tau$, $t_0 \leq s \leq \tau \leq t$.

End of the corrigendum.