



**ERRATUM TO: " (θ, μ, τ) –NEIGHBORHOOD FOR ANALYTIC
 FUNCTIONS INVOLVING MODIFIED SIGMOID FUNCTION"
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We draw attention to some corrections in the section of "**Applications of Jack's Lemma**" which appear in the above-mentioned paper. Our results have changed due to the lack of the $\frac{1}{\tau(s)}$ factor on the left side of equation (in page 2166, line 24). So, we correct them in the following:

- In page 2166, line 19: $\dots < 2\mu - \dots$ should be $\dots < 2\mu\tau(s) - \sqrt{2(1 - \cos \theta)}$.
- In page 2166, line 22: $\dots < \mu + \dots$ should be $\dots < \mu\tau(s) + \sqrt{2(1 - \cos \theta)}$.
- In page 2166, line 24: $\frac{f_\tau(z)}{z} - \dots = \dots$ should be
$$\frac{1}{\tau(s)} \left(\frac{f_\tau(z)}{z} - e^{i\theta} \frac{g_\tau(z)}{z} - (1 - e^{i\theta}) \right) = \mu w(z).$$
- In page 2167, line 2: $|f'_\tau(z) - e^{i\theta} g'_\tau(z)| = \dots$ should be
$$\frac{1}{\tau(s)} |f'_\tau(z) - e^{i\theta} g'_\tau(z)| = \dots$$
- In page 2167, line 4: $\dots < 2\mu - \dots$ should be $\dots < 2\mu\tau(s) - \sqrt{2(1 - \cos \theta)}$.
- In page 2167, line 9: $\dots = \left| \frac{1}{\tau(s)}(1 - e^{i\theta}) + \dots \right|$ should be
$$\dots = |(1 - e^{i\theta}) + \mu\tau(s)e^{i\theta}(1 + k)|.$$
- In page 2167, line 10: $\geq \mu(1 + k) - \dots$ should be $\geq \mu\tau(s)(1 + k) - |1 - e^{i\theta}|.$
- In page 2167, line 11: $\geq 2\mu - \dots$ should be $\geq 2\mu\tau(s) - \sqrt{2(1 - \cos \theta)}$.
- In page 2167, line 15: $\dots = \left| \frac{1}{\tau(s)}(1 - e^{i\theta}) + \dots \right|$ should be
$$\dots = |(1 - e^{i\theta}) + \mu\tau(s)w(z)|.$$
- In page 2167, line 16: $\leq \frac{1}{\tau(s)} |1 - e^{i\theta}| + \dots$ should be $\leq |1 - e^{i\theta}| + \mu\tau(s) |w(z)|.$
- In page 2167, line 17: $< \mu + \dots$ should be $< \mu\tau(s) + \sqrt{2(1 - \cos \theta)}$.
- In page 2167, line 20: $\dots < 2\mu - \frac{\sqrt{2}}{\tau(s)}$ should be $\dots < 2\mu\tau(s) - \sqrt{2}$.

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- In page 2167, line 22: $\dots < \mu + \frac{\sqrt{2}}{\tau(s)}$ should be $\dots < \mu\tau(s) + \sqrt{2}$.
- In page 2168, line 2: $\dots > \frac{1}{\tau(s)}(1 - \cos \theta) - \frac{3\mu}{4}$ should be $\dots > (1 - \cos \theta) - \frac{3\mu}{4}\tau(s)$.
- In page 2168, line 4: $\dots > \frac{1}{\tau(s)}(1 - \cos \theta) - \frac{\mu}{2}$ should be $\dots > (1 - \cos \theta) - \frac{\mu}{2}\tau(s)$.
- In page 2168, line 6: $\frac{f_\tau(z)}{z} - \dots = \dots$ should be
- $\frac{1}{\tau(s)} \left(\frac{f_\tau(z)}{z} - e^{i\theta} \frac{g_\tau(z)}{z} - (1 - e^{i\theta}) \right) = \mu \frac{w(z)}{1-w(z)}$.
- In page 2168, line 8: $\dots = \frac{1}{\tau(s)}(1 - e^{i\theta}) + \dots$ should be
- $\dots = (1 - e^{i\theta}) + \mu\tau(s) \frac{w(z)}{1-w(z)} + \mu\tau(s) \frac{zw'(z)}{(1-w(z))^2}$.
- In page 2168, line 14: $\dots = \operatorname{Re} \left(\frac{1}{\tau(s)}(1 - e^{i\theta}) + \dots \right)$ should be
- $\dots = \operatorname{Re} \left((1 - e^{i\theta}) + \mu\tau(s) \frac{e^{i\theta}}{1 - e^{i\theta}} + \mu\tau(s) \frac{ke^{i\theta}}{(1 - e^{i\theta})^2} \right)$.
- In page 2168, line 15: $= \frac{1}{\tau(s)}(1 - \cos \theta) - \dots$ should be
- $= (1 - \cos \theta) - \frac{\mu}{2}\tau(s) - k\mu\tau(s) \frac{1}{2(1 - \cos \theta)}$.
- In page 2168, line 16: $\leq \frac{1}{\tau(s)}(1 - \cos \theta) - \dots$ should be $\leq (1 - \cos \theta) - \frac{\mu}{2}\tau(s) - \frac{\mu}{4}\tau(s)$.
- In page 2168, line 17: $= \frac{1}{\tau(s)}(1 - \cos \theta) - \frac{3\mu}{4}$ should be $= (1 - \cos \theta) - \frac{3\mu}{4}\tau(s)$.
- In page 2168, line 23: $\dots > \frac{1}{\tau(s)}(1 - \cos \theta) - \frac{\mu}{2}$ should be $\dots > (1 - \cos \theta) - \frac{\mu}{2}\tau(s)$
- In page 2169, line 1: $\dots > \frac{1}{\tau(s)} - \frac{3\mu}{4}$ should be $\dots > 1 - \frac{3\mu}{4}\tau(s)$.
- In page 2169, line 2: $\dots > \frac{1}{\tau(s)} - \frac{3\mu}{4}$ should be $\dots > 1 - \frac{\mu}{2}\tau(s)$.
- In page 2169, line 3: $\dots > \frac{1}{\tau(s)} - \frac{3(1 - \beta)}{2}$ should be $\dots > 1 - \frac{3(1 - \beta)}{2}\tau(s)$.
- In page 2169, line 4: $\dots > \frac{1}{\tau(s)} + \beta - 1$ should be $\dots > 1 + (\beta - 1)\tau(s)$.

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