Errata

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This document lists errata for the dissertation titled "*Digital Systems for the MITRA*" submitted by Ruben Anderson Louis.

Location	Type	Fix
Pg. vi item 2.5	Missing word	Word "from", missing between "*source is offset*", and "*the phase centre"*
Pg. 3 Sec. 1.1 Par. 1 4^{th} row 2^{nd} sentence	Wrong word	Should be "Diffraction affects all types of", instead of "*Diffraction effects all types of*"
Pg. 5 Sec. 1.2 Par. 2 7^{th} row	Missing words	Should be "E-W, and 4 other oriented" instead of "*E-W 4 other oriented*"
Pg. 6 Sec. 1.4 Par. 1 2^{nd} row 2^{nd} sentence	Spelling	Misspelled word "concise" as "*consise*"
Pg. 6 Sec. 1.4 Par. 1 6^{th} row 2^{nd} sentence	Missing word	Word "the", missing between "*is a discussion about*", "*application of in GPGPU*"
Pg. 7 Sec. 2.1 Par. 1 1^{st} row 1^{st} sentence	Superfluous word	"*which shows ~~an~~ incoming electromagnetic planar wavefronts* "
Pg. 7 Sec. 2.1 Par. 1 2^{th} row 2^{st} sentence	Ambiguous spelling	author meaning "direction of the wavefront**s**", instead of "*direction of the wavefront*"
Pg. 10 Sec. 2.1.1 Par. 1 Eq. 2.13	Serious typographical mistake	$V'(u,v,w) = \iint\limits_{\text{sky patch}} A_N I(l,m) e^{-j2\pi(\mathbf{D}_\lambda \cdot (\hat{\mathbf{s}}_\mathbf{0} - \hat{\mathbf{s}}))} d\Omega$ instead of the wrong eq. present as follows: $V'(u,v,w) = \iint\limits_{\text{sky patch}} A_N I(l,m) e^{-j2\pi(\mathbf{D}_\lambda \cdot \hat{\mathbf{s}})} d\Omega$

Pg. 11 Sec. 2.1.1 Par. 1 2.15	Serious typographical mistake	$\left(\sqrt{(1-l^2-m^2)}-1\right) w \simeq -\frac{1}{2}(l^2+m^2)w$ instead of the wrong square root terms present as follows: $\left(\sqrt{(1-l^2-m^2)-1}\right) w \simeq -\frac{1}{2}(l^2+m^2)w$
Pg. 12 Sec. 2.2 Par. 2 Fig. 2.5 label	Missing punctuation	Should be "Visibility function, source offset from the phase centre", instead of : "Visibility function source offset from the phase centre"
Pg. 15 Sec. 2.3 4^{th} row	Serious typographical mistake	$\frac{(ul+vm)}{\nu}$ instead of the wrong n coordinate present as follows: $\frac{(ul+vn)}{\nu}$
Pg. 15 Sec. 2.3 5^{th} row	Wrong word	Should be "the path length is the greatest", instead of "*the path length is the greater*"
Pg. 15 Sec. 2.3 Eq. 2.28	Serious typographical mistake	$r = \int_{-\infty}^{\infty}\int_{-\infty}^{\infty} I(l,m)A(l,m)e^{-j2\pi(lu+mv)}dldm \int_{-\infty}^{\infty}\lvert H(\nu)\rvert^2 d\nu$ instead of the exponential term as follows: $r = \int_{-\infty}^{\infty}\int_{-\infty}^{\infty} I(l,m)A(l,m)dldm \int_{-\infty}^{\infty}\lvert H(\nu)\rvert^2 \cancel{e^{-j2\pi(lu+mv)}} d\nu$
Pg. 15 Sec. 2.3 Eq. 2.29	Serious typographical mistake	$A_0 V(u,v) \int_{-\infty}^{\infty}\lvert H(\nu)\rvert^2 d\nu$ instead of the exponential term as follows: $A_0 V(u,v) \int_{-\infty}^{\infty}\lvert H(\nu)\rvert^2 \cancel{e^{-j2\pi(lu+mv)}} d\nu$
3^{rd} Par. at Pg. 15 Sec. 2.3, last sentence	Serious typographical mistake	Instead of "constant over a bandwidth, $\Delta\nu$", "*constant over a bandwidth*, A_0", has been written.
Last Par. at Pg. 15 Sec. 2.3, 1^{st} sentence	Serious typographical mistake	The (Jansky) unit should be $\mathrm{Wm^{-2}Hz^{-1}}$, instead of "$\mathrm{Wm^{2}Hz^{-1}}$"
Pg. 16, 1^{st} Par. Sec. 2.4.1, 3^{rd} row, 1^{st} sentence	Superfluous punctuation	(Thompson et al., 2008, Sec 8.7)~~,~~.