

Erratum

Corrections to "Shift-Orthogonal Wavelet Bases Using Splines"

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In the above paper,¹ the following corrections were overlooked in the final printing.

The line following equation (1) should read:

V_0^n is the basic space of splines of degree n , that is, the subspace of functions that are $(n-1)$ continuously differentiable and are polynomial of degree n in each interval $[k, k+1)$ $k \in \mathbb{Z}$.

Equation (2) should read:

$$\beta^n\left(\frac{x}{2}\right) = \sum_{k \in \mathbb{Z}} u_2^n(k) \beta^n(x-k). \quad (2)$$

Equation (5) should read:

$$\phi(x) = \sum_{k \in \mathbb{Z}} (b_1^{2n+1})^{-1/2}(k) \beta^n(x-k). \quad (5)$$

The line following equation (6) should read:

where $(b_1^{n+2})^{-1}(k) \stackrel{x}{\leftrightarrow} 1/B_1^{n+2}(z)$ is the convolution inverse of the cross-correlation sequence $(b_1^{n+2})(k) = \langle \beta^n(x), \beta^1(x-k) \rangle$.

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Equation (8) should read:

$$\psi\left(\frac{x}{2}\right) = \sum_{k \in \mathbb{Z}} [\tilde{p}]_{\uparrow 2} * q(k) \beta^n(x-k). \quad (8)$$

Equation (9) should read:

$$q(k+1) = (-1)^k \cdot (u_2^1 * b_1^{n+2})(k). \quad (9)$$

Equation (11) should read:

$$\tilde{\psi}\left(\frac{x}{2}\right) = \sum_{k \in \mathbb{Z}} [\tilde{p}]_{\uparrow 2} * \tilde{q}(k) \beta^1(x-k). \quad (11)$$

Equation (15) should read:

$$\begin{cases} \tilde{h}(k) = \frac{1}{2} \langle \tilde{\phi}\left(\frac{x}{2}\right), \phi(x+k) \rangle \\ \tilde{g}(k) = \frac{1}{2} \langle \tilde{\psi}\left(\frac{x}{2}\right), \phi(x+k) \rangle \\ h(k) = \langle \phi\left(\frac{x}{2}\right), \tilde{\phi}(x-k) \rangle \\ g(k) = \langle \psi\left(\frac{x}{2}\right), \tilde{\phi}(x-k) \rangle \\ h(k) = \langle \phi\left(\frac{x}{2}\right), \tilde{\phi}(x-k) \rangle \\ g(k) = \langle \psi\left(\frac{x}{2}\right), \tilde{\phi}(x-k) \rangle. \end{cases} \quad (15)$$