

## $\psi^n$ Expansion

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**Algorithm 1** Wavelet Transform: MRE with queue controlled visits of the Quad Tree

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**Require:** Wavelet Transform, MRE, and wavelet pair ( $\psi$  and  $\phi$ )

**Require:** Matrix  $S$

Load  $S$  into temporary matrix  $T$

**for**  $i = 1$  to  $n$  **do**

$$T \xrightarrow{\psi_c} X$$

$$X \xrightarrow{\psi_r} T$$

**end for**

return  $T$  as the transformed matrix

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