

- There is a significant issue as to how the difference terms, and average terms are indexed.
- The issue is how each element is accounted for in the wavelet representation.

$$(S_i, S_{i-1}) \rightarrow A_i, \text{ and } (S_i, S_{i-1}) \rightarrow D_i.$$

- The following equations represent the mapping from the average and difference arrays to the recovered array.

$$\begin{array}{lll} \text{Odd:} & R_{2i} = (A_i - D_i)\sqrt{1/2}, & R_{2i+1} = (A_i + D_i)\sqrt{1/2} \\ \text{Even:} & R_{2i} = (A_i + D_i)\sqrt{1/2}, & R_{2i-1} = (A_i - D_i)\sqrt{1/2} \end{array}$$