

$$\ln(1 - \ln 2) = \ln(1 - \ln 3) + 1$$







$$1/s_j = \frac{1}{j+1} \sum_{k=0}^j v_k^2.$$

$$v_k = \left( \frac{k}{S_k} - \frac{k-1}{S_{k-1}} \right)^{\frac{1}{2}} .$$







$$\Delta s_j = \left[ -2s_j^2 / (j+1) \right] \sum_{k=0}^j v_k \Delta v_k.$$

$$\Delta v_k = v_k \sum_{j=k}^{\infty} \left[ -2s_j^2 / (j+1) \right] \Delta s_j.$$



$$v_k \equiv \sum_i D_{k-i} w_i \equiv (B \cdot W)_k.$$



$$\left\{ s_j - \left[ \frac{1}{j+1} \sum_{k=0}^j (\underline{\mathbf{B}} \cdot \underline{\mathbf{w}})_k^2 \right]^{-1} \right\}^2 + \epsilon \sum_k w_k^2.$$









$$\left[ \Delta s_j - \frac{2s_j^2}{j+1} \sum_{k=0}^j (\underline{\mathbf{B}} \cdot \underline{\mathbf{w}})_k (\underline{\mathbf{B}} \cdot \Delta \underline{\mathbf{w}})_k \right]^2 + \epsilon \sum_k (w_k + \Delta w_k)^2.$$