$$\Psi(f,t+1) = \sum_{s} \left[f(t,s-1) \left(\frac{1}{2} + \gamma + d(t,s-1) \right) + f(t,s+1) \left(\frac{1}{2} - \gamma - d(t,s+1) \right) \right] \phi(t+1,s)$$