

(N+S) Equation

$$\pi_x \left(z\lambda + [Min(y, m)]\mu \right) = (D) \times \pi_{x-1}([Min(y+1, m)]\mu) + \pi_{x+1}([Min(z+1, N)]\lambda) \quad for \quad -N \leq x \leq S-1$$

$$\sum_{x=-N}^S \pi_x = 1$$

-----Where-----

$$z = \begin{cases} N & if \quad x \geq 0 \\ N+x & otherwise \end{cases}$$

$$y = S-x \quad for \quad -N \leq x \leq S$$

$$D = \begin{cases} 1 & if \quad -N+1 \leq x \leq S \\ 0 & otherwise \end{cases}$$