

Consider the matrices used in Example 1.

$$\mathbf{D} = \begin{pmatrix} 3 & 3 \\ 1 & 1 \end{pmatrix}$$

$$\mathbf{S} = \begin{pmatrix} 1 & 0 \\ 2 & 1 \end{pmatrix}$$

$$\mathbf{H} = \begin{pmatrix} 0 & 0 \\ 0 & 1 \end{pmatrix}$$

Using equation 15 for $p_D^0(\mathbf{H})$ we get the following:

$$\begin{aligned} p_D^0(\mathbf{H}) &= \left[\begin{pmatrix} 1 \\ 0 \end{pmatrix} \times (1.0)^0 \times 0^1 \right] \times \left[\begin{pmatrix} 2 \\ 0 \end{pmatrix} \times (1.0)^0 \times 0^2 \right] \\ &= 0.0 \end{aligned}$$

This causes equation 16 to evaluate to 0, as we see in the output. Am I missing something?