In theory (e.g. papers from Camanho et al.), stiffness is reduced by $(1-d)$:

$$1 - d = 1 - \frac{\delta^F(\lambda - \delta^0)}{\lambda(\delta^F - \delta^0)} \qquad d \ldots \text{damage variable}$$

$$= \ldots = \frac{\delta^0(\delta^F - \lambda)}{\lambda(\delta^F - \delta^0)}$$

In *MAT_138 of LS-DYNA, we have damage variable defined as:

$$D = \frac{\lambda - \delta^0}{\delta^F - \delta^0} \qquad (\text{"plastic strain"})$$

but stiffness is reduced by this factor

$$r = \frac{1 - D}{1 + D\left(\frac{\delta^F}{\delta^0} - 1\right)}$$

$$= \ldots = \frac{\delta^0(\delta^F - \lambda)}{\lambda(\delta^F - \delta^0)}$$

which is exactly the same as in "theory"

⇨ Stiffness reduction factor is the same in *MAT_138 and theory, only difference is the definition of "damage".