

$$N_{A/X} \left[ \frac{\partial \nu_{\text{hum}}}{\partial \hat{u}_B} \right] \bar{u}_{/X} + N_{A/X} \nu_{\text{mur}} \frac{\partial \bar{u}_{/X}}{\partial \hat{u}_B}$$

$\downarrow$   $\swarrow$   $\downarrow$   
 $2$   $\tau$   $N_{B/X}$

$$N_{A/X} \left[ 2\tau \bar{u} N_{B/X} \right] \bar{u}_{/X}$$

$\tau$  is assumed to be not dependent on  $u$

add to physical diffusion

$$N_{A/X} (\nu + \nu_{\text{mur}}) N_{B/X}$$

index  $k$  (for non-linear iterations)

$$\bar{u} (k=0) = [ \quad ] \quad \text{initial guess}$$

loop over  $k$

loop over  $e$

loop over  $q$

$$\left\{ \left\{ \left[ G_a^e \middle| \bar{u}^{(k)} \right]_q \right\} \right\}_{\bar{u}^{(k+1)}}$$

$$\left[ \frac{\partial G_a^e}{\partial \hat{u}_b^e} \middle| \bar{u}^{(k)} \right]_q$$