

شکستن فرمول‌های خیلی طولانی

۲۸ آذر ۱۳۹۱

با استفاده از بسته breqn می‌توانید فرمول را بصورت خودکار بشکنید و نیازی به محیط align ندارید. breqn جزو بسته mh می‌باشد.

$$\begin{aligned}
 & \left(\hat{E}h + \nu E^s \right) \left[\sum_{m=\setminus}^{N_x} B_{im}^x u_{mj} + \left(\sum_{m=\setminus}^{N_x} A_{im}^x w_{mj} \right) \left(\sum_{m=\setminus}^{N_x} B_{im}^x w_{mj} \right) \right] + \\
 & \left[\nu \hat{E}h + Gh + \nu E^s \right] \left[\sum_{m=\setminus}^{N_x} \sum_{n=\setminus}^{N_y} A_{im}^x A_{jn}^y v_{mn} + \left(\sum_{n=\setminus}^{N_y} A_{jn}^y w_{in} \right) \cdot \right. \\
 & \left. \left(\sum_{m=\setminus}^{N_x} \sum_{n=\setminus}^{N_y} A_{im}^x A_{jn}^y w_{mn} \right) \right] [Gh + \nu (\nu \mu^s - \tau^s)] \left[\sum_{n=\setminus}^{N_y} B_{jn}^y u_{in} + \right. \quad (۱) \\
 & \left. \left(\sum_{m=\setminus}^{N_x} A_{im}^x w_{mj} \right) \left(\sum_{n=\setminus}^{N_y} B_{jn}^y w_{in} \right) \right] = \rho h \ddot{u}_{ij} - \mu \rho h \left(\sum_{m=\setminus}^{N_x} B_{im}^x \ddot{u}_{mj} + \right. \\
 & \left. \sum_{n=\setminus}^{N_y} B_{jn}^y \ddot{u}_{in} \right)
 \end{aligned}$$

$$\begin{aligned}
 & \left(\hat{E}h + \nu E^s \right) \left[\sum_{n=\setminus}^{N_y} B_{jn}^y v_{in} + \left(\sum_{n=\setminus}^{N_y} A_{jn}^y w_{in} \right) \left(\sum_{n=\setminus}^{N_y} B_{jn}^y w_{in} \right) \right] + \left(\nu \hat{E}h + \right. \\
 & Gh + \nu E^s \left. \right) \left[\sum_{m=\setminus}^{N_x} \sum_{n=\setminus}^{N_y} A_{im}^x A_{jn}^y u_{mn} + \left(\sum_{m=\setminus}^{N_x} A_{im}^x w_{mj} \right) \left(\sum_{m=\setminus}^{N_x} \right. \right. \quad (۲) \\
 & \left. \sum_{n=\setminus}^{N_y} A_{im}^x A_{jn}^y w_{mn} \right) + [Gh + \nu (\nu \mu^s - \tau^s)] \left[\sum_{m=\setminus}^{N_x} B_{im}^x v_{mj} + \left(\sum_{n=\setminus}^{N_y} A_{jn}^y w_{in} \right) \right. \\
 & \left. \left(\sum_{m=\setminus}^{N_x} B_{im}^x w_{mj} \right) \right] = \rho h \ddot{v}_{ij} - \mu \rho h \left(\sum_{m=\setminus}^{N_x} B_{im}^x \ddot{v}_{mj} + + \sum_{n=\setminus}^{N_y} B_{jn}^y \ddot{v}_{in} \right)
 \end{aligned}$$

$$\begin{aligned}
& \left\{ [T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{l}, \mathfrak{l}) + \mathfrak{Y}T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{d}, \mathfrak{l}) + T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{Y}, \mathfrak{l})] \left(\sum_{m=\mathfrak{l}}^{N_\xi} \bar{D}_{im}^\xi w_{mj}^b + B_{i\mathfrak{l}}^\xi \kappa_{\mathfrak{l}j}^{bx} + B_{i\mathfrak{l}}^\xi \kappa_{N_\xi j}^{b\xi} \right) + \right. \\
& [T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{l}, \mathfrak{Y}) + \mathfrak{Y}T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{d}, \mathfrak{Y}) + T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{Y}, \mathfrak{Y})] \left(\sum_{n=\mathfrak{l}}^{N_\eta} \bar{D}_{jn}^\eta w_{in}^b + B_{j\mathfrak{l}}^\eta \kappa_{i\mathfrak{l}}^{b\eta} + B_{j\mathfrak{l}}^\eta \kappa_{iN_\eta}^{b\eta} \right) + \\
& [T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{l}, \mathfrak{Y}) + \mathfrak{Y}T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{d}, \mathfrak{Y}) + T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{Y}, \mathfrak{Y})] \sum_{n=\mathfrak{l}}^{N_\eta} A_{jn}^\eta \left(\sum_{m=\mathfrak{l}}^{N_\xi} \bar{C}_{im}^\xi w_{mn}^b + A_{i\mathfrak{l}}^\xi \kappa_{\mathfrak{l}n}^{b\xi} + A_{iN_\xi}^\xi \cdot \right. \\
& \left. \kappa_{N_\xi n}^{b\xi} \right) + [T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{l}, \mathfrak{F}) + \mathfrak{Y}T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{d}, \mathfrak{F}) + T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{Y}, \mathfrak{F})] \sum_{m=\mathfrak{l}}^{N_\xi} A_{im}^\xi \left(\sum_{n=\mathfrak{l}}^{N_\eta} \bar{C}_{jn}^\eta w_{mn}^b + A_{j\mathfrak{l}}^\eta \kappa_{\mathfrak{l}n}^{b\eta} \right. \\
& \left. + A_{jN_\eta}^\eta \kappa_{N_\eta n}^{b\eta} \right) + [T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{l}, \mathfrak{d}) + \mathfrak{Y}T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{d}, \mathfrak{d}) + T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{Y}, \mathfrak{d})] \sum_{m=\mathfrak{l}}^{N_\xi} \sum_{n=\mathfrak{l}}^{N_\eta} B_{im}^\xi B_{jn}^\eta w_{mn}^b \left. \right\} \mathfrak{Y} \mu \tau^s \\
& - \mathfrak{Y} \mu \tau^s \left\{ [T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{l}, \mathfrak{l}) + \mathfrak{Y}T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{d}, \mathfrak{l}) + T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{Y}, \mathfrak{l})] \sum_{m=\mathfrak{l}}^{N_\xi} D_{im}^\xi w_{mj}^s + [T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{l}, \mathfrak{Y}) + \right. \\
& \mathfrak{Y}T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{d}, \mathfrak{Y}) + T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{Y}, \mathfrak{Y})] \sum_{n=\mathfrak{l}}^{N_\eta} D_{jn}^\eta w_{in}^s + [T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{l}, \mathfrak{Y}) + \mathfrak{Y}T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{d}, \mathfrak{Y}) + T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{Y}, \mathfrak{Y})] \cdot \\
& \sum_{m=\mathfrak{l}}^{N_\xi} \sum_{n=\mathfrak{l}}^{N_\eta} C_{im}^\xi A_{jn}^\eta w_{mn}^s + [T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{l}, \mathfrak{F}) + \mathfrak{Y}T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{d}, \mathfrak{F}) + T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{Y}, \mathfrak{F})] \sum_{m=\mathfrak{l}}^{N_\xi} \sum_{n=\mathfrak{l}}^{N_\eta} A_{im}^\xi C_{jn}^\eta w_{mn}^s + \\
& [T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{l}, \mathfrak{d}) + \mathfrak{Y}T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{d}, \mathfrak{d}) + T_{\mathfrak{F}\mathfrak{F}}(\mathfrak{Y}, \mathfrak{d})] \sum_{m=\mathfrak{l}}^{N_\xi} \sum_{n=\mathfrak{l}}^{N_\eta} B_{im}^\xi B_{jn}^\eta w_{mn}^s \left. \right\} + (kGh + \mathfrak{Y} \tau^s) \cdot \\
& \left[T_{\mathfrak{Y}\mathfrak{Y}}(\mathfrak{l}, \mathfrak{l}) \sum_{m=\mathfrak{l}}^{N_\xi} B_{im}^\xi w_{mj}^s + T_{\mathfrak{Y}\mathfrak{Y}}(\mathfrak{l}, \mathfrak{Y}) \sum_{n=\mathfrak{l}}^{N_\eta} B_{jn}^\eta w_{in}^s + T_{\mathfrak{Y}\mathfrak{Y}}(\mathfrak{l}, \mathfrak{Y}) \sum_{m=\mathfrak{l}}^{N_\xi} \sum_{n=\mathfrak{l}}^{N_\eta} A_{im}^\xi A_{jn}^\eta w_{mn}^s \right] \\
& + \left(\mathfrak{Y} \tau^s + \mu m \cdot \frac{\partial \mathfrak{Y}}{\partial t \mathfrak{Y}} \right) \left[T_{\mathfrak{Y}\mathfrak{Y}}(\mathfrak{l}, \mathfrak{l}) \sum_{m=\mathfrak{l}}^{N_\xi} B_{im}^\xi (w_{mj}^b + w_{mj}^s) + T_{\mathfrak{Y}\mathfrak{Y}}(\mathfrak{l}, \mathfrak{Y}) \sum_{n=\mathfrak{l}}^{N_\eta} B_{jn}^\eta w_{in}^b \right. \\
& \left. + w_{in}^s \right] + \sum_{m=\mathfrak{l}}^{N_\xi} \sum_{n=\mathfrak{l}}^{N_\eta} A_{im}^\xi A_{jn}^\eta (w_{mn}^b + w_{mn}^s) \left. \right] = m \cdot \frac{\partial \mathfrak{Y} (w_{ij}^b + w_{ij}^s)}{\partial t \mathfrak{Y}}
\end{aligned}$$

(3)