شکستن فرمول‌های خیلی طولانی

۲۸ آذر ۱۳۹۱

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

$$\left(\hat{E}h + \text{۲}E^s\right)\left[\sum_{m=\text{۱}}^{N_x} B_{im}^x u_{mj} + \left(\sum_{m=\text{۱}}^{N_x} A_{im}^x w_{mj}\right)\left(\sum_{m=\text{۱}}^{N_x} B_{im}^x w_{mj}\right)\right] +$$

$$\left[\nu\hat{E}h + Gh + \text{۲}E^s\right]\left[\sum_{m=\text{۱}}^{N_x}\sum_{n=\text{۱}}^{N_y} A_{im}^x A_{jn}^y v_{mn} + \left(\sum_{n=\text{۱}}^{N_y} A_{jn}^y w_{in}\right).\right.$$

$$\left.\left(\sum_{m=\text{۱}}^{N_x}\sum_{n=\text{۱}}^{N_y} A_{im}^x A_{jn}^y w_{mn}\right)\right]\left[Gh + \text{۲}\left(\text{۲}\mu^s - \tau^s\right)\right]\left[\sum_{n=\text{۱}}^{N_y} B_{jn}^y u_{in} + \right.$$

$$\left.\left(\sum_{m=\text{۱}}^{N_x} A_{im}^x w_{mj}\right)\left(\sum_{n=\text{۱}}^{N_y} B_{jn}^y w_{in}\right)\right] = \rho h\ddot{u}_{ij} - \mu\rho h\left(\sum_{m=\text{۱}}^{N_x} B_{im}^x \ddot{u}_{mj} + \right.$$

$$\left.\sum_{n=\text{۱}}^{N_y} B_{jn}^y \ddot{u}_{in}\right)$$

$$\left(\hat{E}h + \text{۲}E^s\right)\left[\sum_{n=\text{۱}}^{N_y} B_{jn}^y v_{in} + \left(\sum_{n=\text{۱}}^{N_y} A_{jn}^y w_{in}\right)\left(\sum_{n=\text{۱}}^{N_y} B_{jn}^y w_{in}\right)\right] + \left(\nu\hat{E}h + \right.$$

$$\left. Gh + \text{۲}E^s\right)\left[\sum_{m=\text{۱}}^{N_x}\sum_{n=\text{۱}}^{N_y} A_{im}^x A_{jn}^y u_{mn} + \left(\sum_{m=\text{۱}}^{N_x} A_{im}^x w_{mj}\right)\left(\sum_{m=\text{۱}}^{N_x}\right.\right.$$

$$\left.\left. \sum_{n=\text{۱}}^{N_y} A_{im}^x A_{jn}^y w_{mn}\right) + \left[Gh + \text{۲}\left(\text{۲}\mu^s - \tau^s\right)\right]\left[\sum_{m=\text{۱}}^{N_x} B_{im}^x v_{mj} + \left(\sum_{n=\text{۱}}^{N_y} A_{jn}^y w_{in}\right)\right.\right.$$

$$\left.\left.\left(\sum_{m=\text{۱}}^{N_x} B_{im}^x w_{mj}\right)\right] = \rho h\ddot{v}_{ij} - \mu\rho h\left(\sum_{m=\text{۱}}^{N_x} B_{im}^x \ddot{v}_{mj} + + \sum_{n=\text{۱}}^{N_y} B_{jn}^y \ddot{v}_{in}\right) \tag{۱}$$

$$
\begin{aligned}
&\left\{ [T_{۴۴}(۱,۱) + ۲T_{۴۴}(۵,۱) + T_{۴۴}(۲,۱)] \left(\sum_{m=۱}^{N_\xi} \bar{D}_{im}^\xi w_{mj}^b + B_{i۱}^\xi \kappa_{۱j}^{bx} + B_{i۱}^\xi \kappa_{N_\xi j}^{b\xi} \right) + \right. \\
&[T_{۴۴}(۱,۲) + ۲T_{۴۴}(۵,۲) + T_{۴۴}(۲,۲)] \left(\sum_{n=۱}^{N_\eta} \bar{D}_{jn}^\eta w_{in}^b + B_{j۱}^\eta \kappa_{i۱}^{b\eta} + B_{j۱}^\eta \kappa_{iN_\eta}^{b\eta} \right) + \\
&[T_{۴۴}(۱,۳) + ۲T_{۴۴}(۵,۳) + T_{۴۴}(۲,۳)] \sum_{n=۱}^{N_\eta} A_{jn}^\eta \left(\sum_{m=۱}^{N_\xi} \bar{C}_{im}^\xi w_{mn}^b + A_{i۱}^\xi \kappa_{۱n}^{b\xi} + A_{iN_\xi}^\xi . \right. \\
&\left. \kappa_{N_\xi n}^{b\xi} \right) + [T_{۴۴}(۱,۴) + ۲T_{۴۴}(۵,۴) + T_{۴۴}(۲,۴)] \sum_{m=۱}^{N_\xi} A_{im}^\xi \left(\sum_{n=۱}^{N_\eta} \bar{C}_{jn}^\eta w_{mn}^b + A_{j۱}^\eta \kappa_{۱n}^{b\eta} \right. \\
&\left. + A_{jN_\eta}^\eta \kappa_{N_\eta n}^{b\eta} \right) + [T_{۴۴}(۱,۵) + ۲T_{۴۴}(۵,۵) + T_{۴۴}(۲,۵)] \sum_{m=۱}^{N_\xi} \sum_{n=۱}^{N_\eta} B_{im}^\xi B_{jn}^\eta w_{mn}^b \right\} ۲\mu\tau^s \\
&- ۲\mu\tau^s \left\{ [T_{۴۴}(۱,۱) + ۲T_{۴۴}(۵,۱) + T_{۴۴}(۲,۱)] \sum_{m=۱}^{N_\xi} D_{im}^\xi w_{mj}^s + [T_{۴۴}(۱,۲) + \right. \\
&۲T_{۴۴}(۵,۲) + T_{۴۴}(۲,۲)] \sum_{n=۱}^{N_\eta} D_{jn}^\eta w_{in}^s + [T_{۴۴}(۱,۳) + ۲T_{۴۴}(۵,۳) + T_{۴۴}(۲,۳)] . \\
&\sum_{m=۱}^{N_\xi} \sum_{n=۱}^{N_\eta} C_{im}^\xi A_{jn}^\eta w_{mn}^s + [T_{۴۴}(۱,۴) + ۲T_{۴۴}(۵,۴) + T_{۴۴}(۲,۴)] \sum_{m=۱}^{N_\xi} \sum_{n=۱}^{N_\eta} A_{im}^\xi C_{jn}^\eta w_{mn}^s + \\
&\left. [T_{۴۴}(۱,۵) + ۲T_{۴۴}(۵,۵) + T_{۴۴}(۲,۵)] \sum_{m=۱}^{N_\xi} \sum_{n=۱}^{N_\eta} B_{im}^\xi B_{jn}^\eta w_{mn}^s \right\} + (kGh + ۲\tau^s) . \\
&\left[T_{۲۲}(۱,۱) \sum_{m=۱}^{N_\xi} B_{im}^\xi w_{mj}^s + T_{۲۲}(۱,۲) \sum_{n=۱}^{N_\eta} B_{jn}^\eta w_{in}^s + T_{۲۲}(۱,۳) \sum_{m=۱}^{N_\xi} \sum_{n=۱}^{N_\eta} A_{im}^\xi A_{jn}^\eta w_{mn}^s \right] \\
&+ \left(۲\tau^s + \mu m . \frac{\partial^۲}{\partial t^۲} \right) \left[T_{۲۲}(۱,۱) \sum_{m=۱}^{N_\xi} B_{im}^\xi \left(w_{mj}^b + w_{mj}^s \right) + T_{۲۲}(۱,۲) \sum_{n=۱}^{N_\eta} B_{jn}^\eta w_{in}^b \right. \\
&\left. + w_{in}^s) + \sum_{m=۱}^{N_\xi} \sum_{n=۱}^{N_\eta} A_{im}^\xi A_{jn}^\eta \left(w_{mn}^b + w_{mn}^s \right) \right] = m . \frac{\partial^۲ \left(w_{ij}^b + w_{ij}^s \right)}{\partial t^۲} \\
&\hspace{11cm} (۲)
\end{aligned}
$$