

$$\left[\frac{1}{(1+\gamma_{\text{f}})^2}+2b_{\text{f}}\left(I_{4\text{f}}^{\text{E}}-1\right)^2\right](\boldsymbol{u}\cdot\boldsymbol{F}f_0)^2+\left[\frac{I_{4\text{f}}}{(1+\gamma_{\text{f}})^2}-1\right]>0$$