

$$-k_{\rm t0}\left(\varphi_4(t)-\varphi_5(t)\right)+k_{\rm t0}\,\varphi_5(t)+i_{\rm ym5}\,\varphi_5''(t)=\,c_{\rm t0}(\dot{\varphi}_4-\dot{\varphi}_5)-c_{\rm t0}\,\dot{\varphi}_5$$