Gripper coordinates Analytical vs numerical solution 0.2 voji.ection 0 × -0.2 \dot{x} - analytical [m/s] \dot{x} – numerical [m/s] $\ddot{x} - analytical \left[m/s^2 \right]$ $\ddot{x} - numerical \left[m/s^2 \right]$ 0 2 3 5 6 time [s] or of one of the control of the cont $\dot{y} - analytical$ [m/s]- numerical[m/s] $[m/s^{2}]$ \ddot{y} – analytical $[m/s^{2}]$ \ddot{y} – numerical 2 3 5 6 time [s] ×10⁻³ direction 0 -10 \dot{z} - analytical [m/s] \dot{z} – numerical [m/s] \ddot{z} – analytical $[m/s^{2}]$ \ddot{z} – numerical $[m/s^{2}]$ -20 2 3 5 6

time [s]