

- 2.5.5 $W = k \cdot a^2 / 2,$
 $P_{\max} = k \cdot \sqrt{\frac{k}{m}} \cdot \frac{a^2}{2}, \quad r = a \sqrt{\frac{1}{2}}$
- 2.5.6 $F_S = 3F_G \cdot \cos \varphi -$
 $-2F_G \cdot \cos \varphi_0 + \frac{F_G v_0^2}{g \cdot l}$
 $v_G = \sqrt{v_0^2 + 2gl(\cos \varphi - \cos \varphi_0)}$
- 2.5.7 $F_S = 2198,7 \text{ N}$
- 2.5.8 $c = 491 \text{ N/m}$
- 2.5.9 $v_{(8)} = 24,5 \text{ m/s}, v_{(14)} = 71,4 \text{ m/s}$
- 2.5.10 $v = 5,41 \text{ m/s}$
- 2.5.11 $F = 18,177 \text{ N}$
- 2.5.12 $v = 232,2 \text{ m/s}, a = 9,333 \text{ m/s}^2,$
 $s = 1855,6 \text{ m}$
- 2.5.13 $P = 60,8 \text{ kW}, a = 0,6229 \text{ m/s}^2,$
 $v = 21,56 \text{ m/s}$
- 2.5.14 $v = 4,345 \text{ m/s}$
- 2.5.15 $v = 4,787 \text{ m/s}$
- 2.5.16 $\delta = 0,32 \text{ m}, s = 0,751 \text{ m}$ (mje-
 reno od A)
- 2.5.17 $m = 0,8562 \text{ kg}, F' = 9,443 \text{ N}$
 $F'' = 33,14 \text{ N}$
- 2.5.18 $v_{(2)} = 2,577 \text{ m/s}, t = 3,288 \text{ s}$
 $a_{(2)} = 2,868 \text{ m/s}^2$
- 2.5.19 $s_1 = 2,961 \text{ m}, s_x = 1,839 \text{ m}$
- 2.5.20 $v_{(1)} = 0,9129 \text{ m/s},$
 $v_{(3)} = 4,233 \text{ m/s}$

- 2.5.21 $W = 2709,3 \text{ J}$
- 2.5.22 $P = 3,20 \text{ kW}, \mu = 0,364$
- 2.5.23 a) $52,6 \text{ kW},$ b) $59,77 \text{ kW},$
 c) $61,6 \text{ kW}, a = 0,3 \text{ m/s}^2,$
 d) $\mu = 0,3,$ e) $\mu = 0,35$
- Količina gibanja, nalet i zamah čestice**
- 2.5.24 $F = 70 \text{ kN}, a = 0,333 \text{ m/s}^2,$
 $s = 600 \text{ m}$
- 2.5.25 $v = 1,823 \text{ m/s}, t = 0,6194 \text{ s}$
- 2.5.26 $\varphi = \frac{v_0 \cdot t}{R - ct}, \quad F_S = \frac{F_G}{g} \cdot \frac{R^2 \cdot v_0^2}{(R - ct)^3}$
- 2.5.27 $F_2 = 8F_1, \omega_2 = 4\omega_1$
- 2.5.28 $v = 4,66 \text{ m/s}, S_{(to)} = 0,625 \text{ N},$
 $S_{(t)} = 63,244 \text{ N}$
- 2.5.29 $\omega = 0,95 \text{ rad/s}$ (u oba slučaja)
- 2.5.30 $\Delta v = 0,156 \text{ m/s}$
- Osnovne kinetičke veličine sustava čestice**
- 3.1 $s = 1,064 \text{ m} \cdot g/c$
- 3.2 a) $v = \sum_{i=1}^n \frac{F_G \cdot u}{F_{G1} + i \cdot F_G},$
 b) $v = \frac{n \cdot F_G \cdot u}{F_{G1} + n \cdot F_G}.$
- 3.3 $\alpha = 13,27^\circ$
- 3.4 $x = 0,1655 \text{ m}$ (ulijevo)
- 3.5 $v_G = 0,5455 \text{ m/s}, I = 55,6 \text{ N s}$