

Raccolta di esercizi per Meccanica

Errata corrige II edizione

Pagina	Errata	Corretta
Revisione D		
77, penultima formula	$a = \frac{m_2 \cos \alpha - \mu m_1}{m_1 + m_2} g = 0.0333 \text{ m/s}^2$	$a = \frac{m_2 \cos \alpha - \mu m_1}{m_1 + m_2} g = 0.327 \text{ m/s}^2$
77, ultima formula	$T = \mu m_1 g + m_1 a = 3.99 \text{ N}$	$T = \mu m_1 g + m_1 a = 4.58 \text{ N}$
141, ultima formula	$\alpha = \arctg \frac{v_y}{v_x} = \arctg [g(x+d)]$	$\alpha = \arctg \left(\frac{v_y}{v_x} \right) = \arctg \left[\frac{g(x+d)}{v^2} \right] =$ $= \arctg \left[\frac{2h}{x+d} \right]$
Revisione B		
78, I formula	$\begin{cases} R \sin \alpha + F_{att} \cos \alpha = m \omega^2 L \\ R \cos \alpha - F_{att} \sin \alpha = mg \end{cases}$	$\begin{cases} R \sin \alpha + F_{att} \cos \alpha = m \omega^2 L \cos \alpha \\ R \cos \alpha - F_{att} \sin \alpha = mg \end{cases}$
78, V formula	$R \sin \alpha + \mu_s R \cos \alpha = m \omega^2 L$	$R \sin \alpha + \mu_s R \cos \alpha = m \omega^2 L \cos \alpha$
78, VI formula	$L_{max} = \dots$	$L_{max} = R \frac{\sin \alpha + \mu_s \cos \alpha}{m \omega^2 \cos \alpha} =$ $= \frac{g}{\omega^2 \cos \alpha} \frac{\sin \alpha + \mu_s \cos \alpha}{\cos \alpha - \mu_s \sin \alpha} =$ $= \frac{g}{\omega^2 \cos \alpha} \frac{\tan \alpha + \mu_s}{1 - \mu_s \tan \alpha}$
78, VII formula	$\begin{cases} R \sin \alpha - F_{att} \cos \alpha = m \omega^2 L \\ R \cos \alpha + F_{att} \sin \alpha = mg \end{cases}$	$\begin{cases} R \sin \alpha - F_{att} \cos \alpha = m \omega^2 L \cos \alpha \\ R \cos \alpha + F_{att} \sin \alpha = mg \end{cases}$
78, VIII formula	$L_{min} = \dots$	$L_{min} = R \frac{\sin \alpha - \mu_s \cos \alpha}{m \omega^2 \cos \alpha} =$ $= \frac{g}{\omega^2 \cos \alpha} \frac{\sin \alpha - \mu_s \cos \alpha}{\cos \alpha + \mu_s \sin \alpha} =$ $= \frac{g}{\omega^2 \cos \alpha} \frac{\tan \alpha - \mu_s}{1 + \mu_s \tan \alpha}$
134, IV formula	$\Delta K = \frac{1}{2} m_1 v_1'^2 + \frac{1}{2} m_1 (\dots)^2 - K_a$	$\Delta K = \frac{1}{2} m_1 v_1'^2 + \frac{1}{2} m_2 (\dots)^2 - K_a$
168, XXI riga	dell'appoggio R	dell'appoggio N
168, XIV	appoggio R	appoggio N

riga		
168, quart'ultima equazione	$(F_g - A)\cos\theta + (F_g - A)\tan\theta\sin\theta =$ $= m\omega^2 R \cos\theta$	$(F_g - N)\cos\theta + (F_g - N)\tan\theta\sin\theta =$ $= m\omega^2 R \cos\theta$
168, terz'ultima equazione	$(F_g - A)\cos^2\theta + (F_g - A)\sin^2\theta =$ $= m\omega^2 R \cos\theta$	$(F_g - N)\cos^2\theta + (F_g - N)\sin^2\theta =$ $= m\omega^2 R \cos^2\theta$
168, penultima equazione	$F_g - A = m\omega^2 R \cos\theta$	$F_g - N = m\omega^2 R \cos^2\theta$
168, ultima equazione	$A = F_g - m\omega^2 R \cos\theta$	$N = F_g - m\omega^2 R \cos^2\theta$
169, terza equazione	$A = F_g - m\omega^2 R \cos\theta =$ $= m\left(g - \frac{4\pi^2 R}{T^2} \cos\theta\right) =$ $= m(g - \Delta g)$	$N = F_g - m\omega^2 R \cos^2\theta =$ $= m\left(g - \frac{4\pi^2 R}{T^2} \cos^2\theta\right) =$ $= m(g - \Delta g)$
169, quarta equazione	$\Delta g = \frac{4\pi^2 R}{T^2} \cos\theta = k \cos\theta$	$\Delta g = \frac{4\pi^2 R}{T^2} \cos^2\theta = k \cos^2\theta$
169, sesta equazione	$\Delta g(\theta = 0^\circ) - \Delta g(\theta = 45^\circ) =$ $= \frac{4\pi^2 R}{T^2} \left(1 - \frac{\sqrt{2}}{2}\right) = 0.0103 \text{ m/s}^2$	$\Delta g(\theta = 0^\circ) - \Delta g(\theta = 45^\circ) =$ $= \frac{4\pi^2 R}{T^2} \left(1 - \frac{1}{2}\right) = 0.0176 \text{ m/s}^2$
Revisione A		
123, XIII riga	$x'_C = d$	$x''_C = d$
123, XVII riga	$y'_C = \dots$	$y_C = \dots$
182, XIV riga	<p style="text-align: center;">dipendenti</p>	<p style="text-align: center;">indipendenti</p>
185, XII riga	$y_C = \dots = 38.5 \text{ cm}$	$y_C = \dots = 37.7 \text{ cm}$
59, II sistema	$m_B \begin{cases} F - N - T = m_B a \\ S - R - m_B g = 0 \end{cases}$	$m_B \begin{cases} F - N - T = m_B a \\ S - R - T - m_B g = 0 \end{cases}$
165, II equazione	$L = mv_0 d \sin\alpha = m \cdot 4.42 \cdot 10^{15} \text{ m}^2 / \text{s}$	$L = mv_0 d \sin\alpha = m \cdot 3.68 \cdot 10^{15} \text{ m}^2 / \text{s}$
165, ultima equazione	$r = 7.26 \cdot 10^{10} \text{ m}$	$r = 5.05 \cdot 10^{10} \text{ m}$
218, ultima equazione	$\frac{1}{2} mR^2 = \frac{1}{2} m(R^2 + r^2) k\omega$	$\frac{1}{2} mR^2 \omega = \frac{1}{2} m(R^2 + r^2) k\omega$
220, I riga	$m = 1 \text{ kg}$	$m = 0.1 \text{ kg}$
220, XX riga	<p style="text-align: center;">forse</p>	<p style="text-align: center;">forze</p>

220, penultima formula	$\Delta K = \frac{3}{2}m_I\omega^2R^2 + \frac{1}{6}mR^2\omega^2$	$\Delta K = \frac{3}{2}m_I\omega^2R^2 + \frac{1}{6}mL^2\omega^2$
221, prima formula	$\dots + \frac{1}{6}mR^2\omega^2 = 0$	$\dots + \frac{1}{6}mL^2\omega^2 = 0$
221, seconda formula	$\omega = \frac{1}{R} \sqrt{g \frac{3m_I R \frac{5}{6}\pi - m \frac{L}{2}(1 + \cos\theta)}{\frac{3}{2}m_I + \frac{1}{6}m}}$ $= \frac{1}{R} \sqrt{g \frac{15m_I R\pi - 3mL(1 + \cos\theta)}{9m_I + m}}$ $= 15.4 \text{ rad / s}$	$\omega = \sqrt{g \frac{3m_I R \frac{5}{6}\pi - m \frac{L}{2}(1 + \cos\theta)}{\frac{3}{2}m_I R^2 + \frac{1}{6}mL^2}}$ $= \sqrt{g \frac{15m_I R\pi - 3mL(1 + \cos\theta)}{9m_I R^2 + mL^2}}$ $= 10.5 \text{ rad / s}$