Raccolta di esercizi per Meccanica
Errata corrige II edizione

Pagina	Errata	Corretta
	Revisione D	
20, nel testo	$\alpha = 2$ m/s^2 e $\beta = 6$ m/s	$\alpha = 2$ m/s e $\beta = 6$ m
43, ultima formula	$y_{max} = \ldots = 15.6\,\mathrm{m/s}$	$y_{max} = \ldots = 15.6\,\mathrm{m}$
77, penultima formula	$a = \dfrac{m_2 \cos\alpha - \mu m_1}{m_1 + m_2} g = 0.0333\,\mathrm{m/s^2}$	$a = \dfrac{m_2 \cos\alpha - \mu m_1}{m_1 + m_2} g = 0.327\,\mathrm{m/s^2}$
77, ultima formula	$T = \mu m_1 g + m_1 a = 3.99\,\mathrm{N}$	$T = \mu m_1 g + m_1 a = 4.58\,\mathrm{N}$
141, ultima formula	$\alpha = \mathrm{arc\,tg}\dfrac{v_y}{v_x} = \mathrm{arc\,tg}\left[g(x+d)\right]$	$\alpha = \mathrm{arc\,tg}\left(\dfrac{v_y}{v_x}\right) = \mathrm{arc\,tg}\left[\dfrac{g(x+d)}{v^2}\right] = \mathrm{arc\,tg}\left[\dfrac{2h}{x+d}\right]$
	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	$L_{max} = \ldots$	$L_{max} = R\dfrac{\sin\alpha + \mu_s\cos\alpha}{m\omega^2\cos\alpha} = \dfrac{g}{\omega^2\cos\alpha}\dfrac{\sin\alpha + \mu_s\cos\alpha}{\cos\alpha - \mu_s\sin\alpha} = \dfrac{g}{\omega^2\cos\alpha}\dfrac{\tan\alpha + \mu_s}{1 - \mu_s\tan\alpha}$
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	$L_{min} = \ldots$	$L_{min} = R\dfrac{\sin\alpha - \mu_s\cos\alpha}{m\omega^2\cos\alpha} = \dfrac{g}{\omega^2\cos\alpha}\dfrac{\sin\alpha - \mu_s\cos\alpha}{\cos\alpha + \mu_s\sin\alpha} = \dfrac{g}{\omega^2\cos\alpha}\dfrac{\tan\alpha - \mu_s}{1 + \mu_s\tan\alpha}$
134, IV formula	$\Delta K = \dfrac{1}{2}m_1 v_1'^{\,2} + \dfrac{1}{2}m_1(\ldots)^2 - K_a$	$\Delta K = \dfrac{1}{2}m_1 v_1'^{\,2} + \dfrac{1}{2}m_2(\ldots)^2 - K_a$

168, XXI riga	dell'appoggio R	dell'appoggio N
168, XIV riga	appoggio R	appoggio N
168, quart'ultima equazione	$\left(F_g - A\right)\cos\theta + \left(F_g - A\right)\tan\theta\sin\theta = m\omega^2 R\cos\theta$	$\left(F_g - N\right)\cos\theta + \left(F_g - N\right)\tan\theta\sin\theta = m\omega^2 R\cos\theta$
168, terz'ultima equazione	$\left(F_g - A\right)\cos^2\theta + \left(F_g - A\right)\sin^2\theta = m\omega^2 R\cos\theta$	$\left(F_g - N\right)\cos^2\theta + \left(F_g - N\right)\sin^2\theta = m\omega^2 R\cos^2\theta$
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	$A = F_g - m\omega^2 R\cos\theta = m\left(g - \frac{4\pi^2 R}{T^2}\cos\theta\right) = m\left(g - \Delta g\right)$	$N = F_g - m\omega^2 R\cos^2\theta = m\left(g - \frac{4\pi^2 R}{T^2}\cos^2\theta\right) = m\left(g - \Delta g\right)$
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	$\Delta g\left(\theta = 0°\right) - \Delta g\left(\theta = 45°\right) = \frac{4\pi^2 R}{T^2}\left(1 - \frac{\sqrt{2}}{2}\right) = 0.0103\ \mathrm{m/s^2}$	$\Delta g\left(\theta = 0°\right) - \Delta g\left(\theta = 45°\right) = \frac{4\pi^2 R}{T^2}\left(1 - \frac{1}{2}\right) = 0.0176\ \mathrm{m/s^2}$
Revisione A		
123, XIII riga	$x'_C = d$	$x''_C = d$
123, XVII riga	$y'_C = ...$	$y_C = ...$
182, XIV riga	dipendenti	indipendenti
185, XII riga	$y_C = ... = 38.5\ \mathrm{cm}$	$y_C = ... = 37.7\ \mathrm{cm}$
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	$L = mv_0 d\sin\alpha = m\cdot 4.42\cdot 10^{15}\ \mathrm{m^2/s}$	$L = mv_0 d\sin\alpha = m\cdot 3.68\cdot 10^{15}\ \mathrm{m^2/s}$
165, ultima equazione	$r = 7.26\cdot 10^{10}\ \mathrm{m}$	$r = 5.05\cdot 10^{10}\ \mathrm{m}$
218, ultima equazione	$\frac{1}{2}mR^2 = \frac{1}{2}m\left(R^2 + r^2\right)k\omega$	$\frac{1}{2}mR^2\omega = \frac{1}{2}m\left(R^2 + r^2\right)k\omega$

220, I riga	$m = 1$ kg	$m = 0.1$ kg
220, XX riga	forse	forze
220, penultima formula	$\Delta K = \frac{3}{2} m_1 \omega^2 R^2 + \frac{1}{6} m R^2 \omega^2$	$\Delta K = \frac{3}{2} m_1 \omega^2 R^2 + \frac{1}{6} m L^2 \omega^2$
221, prima formula	$\ldots + \frac{1}{6} m R^2 \omega^2 = 0$	$\ldots + \frac{1}{6} m L^2 \omega^2 = 0$
221, seconda formula	$\omega = \frac{1}{R}\sqrt{g\frac{3m_1 R\frac{5}{6}\pi - m\frac{L}{2}(1+\cos\theta)}{\frac{3}{2}m_1 + \frac{1}{6}m}} = \frac{1}{R}\sqrt{g\frac{15m_1 R\pi - 3mL(1+\cos\theta)}{9m_1 + m}} = 15.4 \text{ rad/s}$	$\omega = \sqrt{g\frac{3m_1 R\frac{5}{6}\pi - m\frac{L}{2}(1+\cos\theta)}{\frac{3}{2}m_1 R^2 + \frac{1}{6}mL^2}} = \sqrt{g\frac{15m_1 R\pi - 3mL(1+\cos\theta)}{9m_1 R^2 + mL^2}} = 10.5 \text{ rad/s}$