

# Errata zu Mestemacher, Grundkurs Technische Mechanik

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Seite	Zeile	gedruckt	korrekt
59	9. Z.v.u.	$S = F \left(1 + \frac{b}{a}\right) \frac{\sin \beta}{\tan \alpha}$	$S = F \left(1 + \frac{b}{a}\right) \frac{\sin \beta}{\sin \alpha}$
149	15. Z.v.u.	$\mathbf{U}^{(2)} = \mathbf{v} \otimes \mathbf{w} \neq \mathbf{v} \otimes \mathbf{u}$	$\mathbf{U}^{(2)} = \mathbf{v} \otimes \mathbf{w} \neq \mathbf{w} \otimes \mathbf{v}$
182	Abb. 8.8	$\alpha$	$2\alpha$
186	Abb. oben	$\varphi$	$2\varphi$
228	HUBER-V. MISES	$\sigma_I^2 - \sigma_I \sigma_{II} + \sigma_{II}^2 \equiv \sigma_F$	$\sigma_I^2 - \sigma_I \sigma_{II} + \sigma_{II}^2 \equiv \sigma_F^2$
228	Abb. 10.2	$\sigma_I^2 - \sigma_I \sigma_{II} - \sigma_{II}^2 \equiv \sigma_F$	$\sigma_I^2 - \sigma_I \sigma_{II} + \sigma_{II}^2 \equiv \sigma_F^2$
237	12. Z.v.u.	Querkoordinaten $x$ und $y$	Querkoordinaten $y$ und $z$
247	Abb., linker Teil	$b(z) dz$	$b(z) dx$
248	letzte Zeile	$\tau_{xz}(x, z = \pm \frac{b}{2}) \equiv 0$	$\tau_{xz}(x, z = \pm \frac{h}{2}) \equiv 0$
256	Gl. (2)	$-M_A + B\ell - Fa = 0$	$M_A + B\ell - Fa = 0$
258	Gl. (3)	$B = F\ell \left[-\frac{1}{2} \left(\frac{a}{\ell}\right)^3 + \frac{3}{2} \left(\frac{a}{\ell}\right)^2\right]$	$B = F \left[-\frac{1}{2} \left(\frac{a}{\ell}\right)^3 + \frac{3}{2} \left(\frac{a}{\ell}\right)^2\right]$
258	letzte Gl.	$\begin{pmatrix} 1 & 0 & -\ell \\ 0 & 1 & 1 \\ 0 & 0 & 1 \end{pmatrix} \begin{pmatrix} M_A \\ A_z \\ B \end{pmatrix} =$ $= F\ell \begin{pmatrix} -a \\ 1 \\ -\frac{1}{2} \left(\frac{a}{\ell}\right)^3 + \frac{3}{2} \left(\frac{a}{\ell}\right)^2 \end{pmatrix}$	$\begin{pmatrix} 1 & 0 & \ell \\ 0 & 1 & 1 \\ 0 & 0 & 1 \end{pmatrix} \begin{pmatrix} M_A \\ A_z \\ B \end{pmatrix} =$ $= F \begin{pmatrix} a \\ 1 \\ -\frac{1}{2} \left(\frac{a}{\ell}\right)^3 + \frac{3}{2} \left(\frac{a}{\ell}\right)^2 \end{pmatrix}$
259	erste Gl.	$M_A = \frac{F\ell}{2} \left[-\left(\frac{a}{\ell}\right)^3 + 3 \left(\frac{a}{\ell}\right)^2 - 2 \frac{a}{\ell}\right]$	$M_A = \frac{F\ell}{2} \left[\left(\frac{a}{\ell}\right)^3 - 3 \left(\frac{a}{\ell}\right)^2 + 2 \frac{a}{\ell}\right]$
265	8. Z.v.o.	$I_{y^*}(\varphi) = \frac{bh}{24} (b^2 \sin^2 \varphi + h^2 \cos^2 \varphi)$	$I_{y^*}(\varphi) = \frac{bh}{12} (b^2 \sin^2 \varphi + h^2 \cos^2 \varphi)$
265	9. Z.v.o.	$I_{x^*}(\varphi) = \frac{bh}{24} (b^2 \cos^2 \varphi + h^2 \sin^2 \varphi)$	$I_{x^*}(\varphi) = \frac{bh}{12} (b^2 \cos^2 \varphi + h^2 \sin^2 \varphi)$
269	Achsenbezeichn.	$y, z$	$\hat{y}, \hat{z}$
272	Abb., rechter Teil	$-dv'$	$dv'$
273	Gl. (11.15*)	$= \frac{1}{\Delta} [(M_{By}(x) I_z - M_{Bz}(x) I_{yz}) z$ $- (M_{By}(x) I_{yz} - M_{Bz}(x) I_y) y]$	$= \frac{1}{\Delta} [(M_{By}(x) I_z - M_{Bz}(x) I_{yz}) z$ $+ (M_{By}(x) I_{yz} - M_{Bz}(x) I_y) y]$
283	erste Gl.	$\sum M_i[A] = \dots = (2 \frac{c}{\ell} - F) w$	$\sum M_i[A] = \dots = (F - 2 \frac{c}{\ell}) w$
315	7. Z.v.o.	$a_i(t) = \dots = \frac{d^2 v_i}{dt^2} = \ddot{x}_i(t)$	$a_i(t) = \dots = \frac{d^2 x_i}{dt^2} = \ddot{x}_i(t)$
345	4. Z.v.u.	$+ 2 \boldsymbol{\omega}(t) \times \mathbf{v}^*(t) + \mathbf{a}^*(t)$	$+ \boldsymbol{\omega}(t) \times \mathbf{v}^*(t) + \mathbf{a}^*(t)$
362	6. Z.v.o.	$x_h(t) = e^{-Dt} (c_1 \cos[\omega_0 t] + c_2 \sin[\omega_0 t])$ $= A e^{-Dt} \cos[\omega_0 t - \varepsilon]$	$x_h(t) = e^{-Dt} (c_1 \cos[\omega_1 t] + c_2 \sin[\omega_1 t])$ $= A e^{-Dt} \cos[\omega_1 t - \varepsilon]$
362	Abb., rechter Teil	$\exp[-D \tau]$	$A \exp[-D \tau]$
370	3. Z.v.o.	$m(\alpha x) \stackrel{?}{=} \alpha(mx + n)$	$m(\alpha x) + n \stackrel{?}{=} \alpha(mx + n)$
409	Gl. (1)	$\sum \mathbf{M}_\nu[0] = \mathbf{r}_{0A} + \mathbf{r}_{0S} \times \mathbf{G} = \dots$	$\sum \mathbf{M}_\nu[0] = \mathbf{r}_{0A} \times \mathbf{A} + \mathbf{r}_{0S} \times \mathbf{G} = \dots$
409	10. Z.v.o.	In der $x_1, x_2$ -Ebene	In der $x_2, x_3$ -Ebene