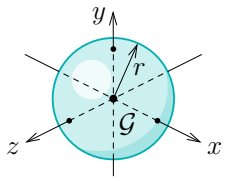
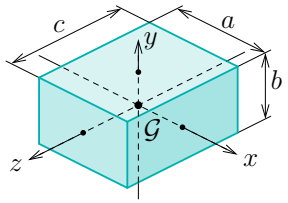
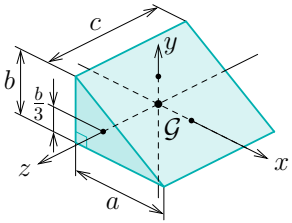
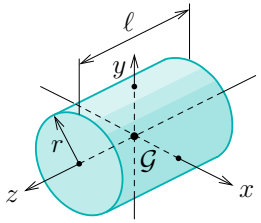
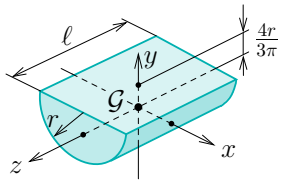
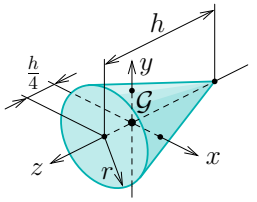
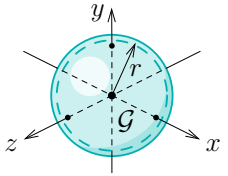
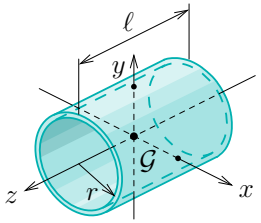
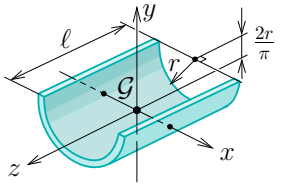
Tröghetsmatrisens diagonal $I_{\mathcal{G}xx}$, $I_{\mathcal{G}yy}$ och $I_{\mathcal{G}zz}$ m.a.p. masscentrum $\mathcal{G}$ för tredimensionella kroppar, skal och stänger med jämnt fördelad massa m.

klot		$I_{\mathcal{G}xx} = I_{\mathcal{G}yy} = I_{\mathcal{G}zz} = \frac{2}{5}mr^2$
rätblock		$I_{\mathcal{G}xx} = \frac{1}{12}m(b^2+c^2)$ $I_{\mathcal{G}yy} = \frac{1}{12}m(a^2+c^2)$ $I_{\mathcal{G}zz} = \frac{1}{12}m(a^2+b^2)$
rätvinkligt prisma		$I_{\mathcal{G}zz} = \frac{1}{18}m(a^2+b^2)$
cylinder		$I_{\mathcal{G}xx} = I_{\mathcal{G}yy} = \frac{1}{4}mr^2 + \frac{1}{12}m\ell^2$ $I_{\mathcal{G}zz} = \frac{1}{2}mr^2$
halvcylinder		$I_{\mathcal{G}xx} = \left(\frac{1}{4} - \frac{16}{9\pi^2}\right)mr^2 + \frac{1}{12}m\ell^2$ $I_{\mathcal{G}yy} = \frac{1}{4}mr^2 + \frac{1}{12}m\ell^2$ $I_{\mathcal{G}zz} = \left(\frac{1}{2} - \frac{16}{9\pi^2}\right)mr^2$

kon		$I_{\mathcal{G}xx} = I_{\mathcal{G}yy} = \frac{3}{20}mr^2 + \frac{3}{80}mh^2$ $I_{\mathcal{G}zz} = \frac{3}{10}mr^2$
sfäriskt skal		$I_{\mathcal{G}xx} = I_{\mathcal{G}yy} = I_{\mathcal{G}zz} = \frac{2}{3}mr^2$
cylinderskal		$I_{\mathcal{G}xx} = I_{\mathcal{G}yy} = \frac{1}{2}mr^2 + \frac{1}{12}m\ell^2$ $I_{\mathcal{G}zz} = mr^2$
halvcylinderskal		$I_{\mathcal{G}xx} = \left(\frac{1}{2} - \frac{4}{\pi^2}\right)mr^2 + \frac{1}{12}m\ell^2$ $I_{\mathcal{G}yy} = \frac{1}{2}mr^2 + \frac{1}{12}m\ell^2$ $I_{\mathcal{G}zz} = \left(1 - \frac{4}{\pi^2}\right)mr^2$