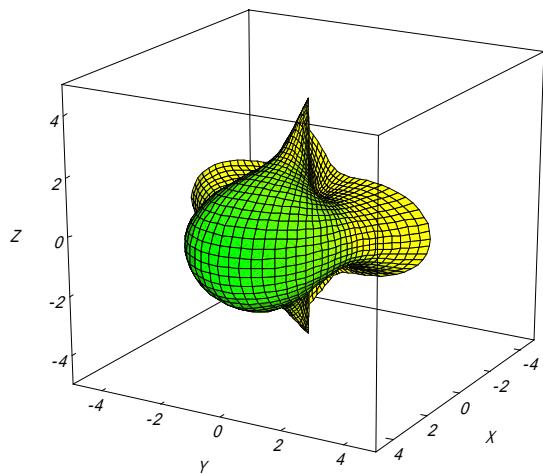


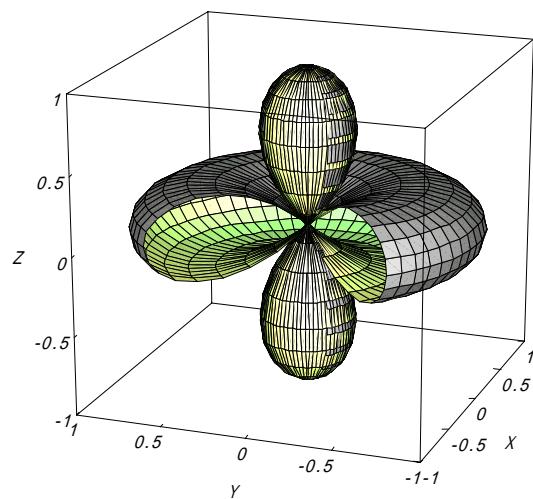
<関数グラフ(3次元)>

$$R3(u) = \cos 2u$$

$$\begin{aligned}x(t,u) &= R3(u) \cos t \cos u \\y(t,u) &= R3(u) \sin t \cos u \\z(t,u) &= R3(u) \sin u\end{aligned}$$

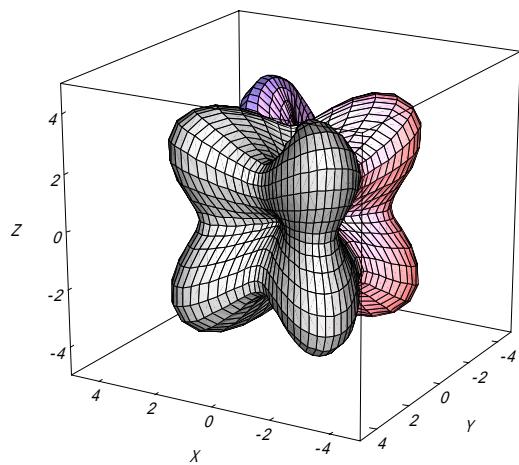
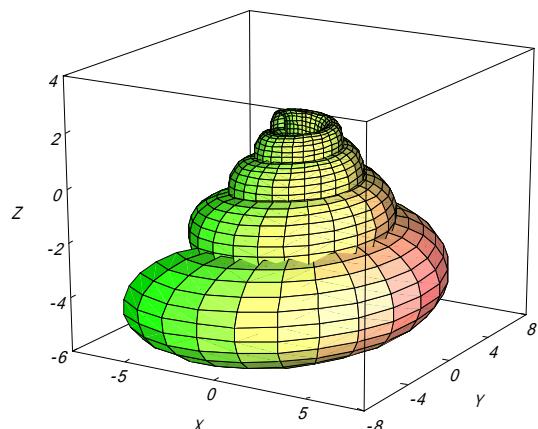


$$\begin{aligned}x(t,u) &= e^{-0.05t} (2 + e^{-0.05t} \cos u) * \cos t \\y(t,u) &= e^{-0.05t} (2 + e^{-0.05t} \cos u) * \sin t \\z(t,u) &= 0.1t + e^{-0.05t} (0.1t + \sin u)\end{aligned}$$



$$R22(t,u) = 3 + \cos(3t) + \cos(3u)$$

$$\begin{aligned}x(t,u) &= R22(t,u) \cos t \cos u \\y(t,u) &= R22(t,u) \sin t \cos u \\z(t,u) &= R22(t,u) \sin u\end{aligned}$$



$$R24(t,u) = 3 - \cos 4t - \cos 4u$$

$$\begin{aligned}x(t,u) &= R24(t,u) \cos t \cos u \\y(t,u) &= R24(t,u) \sin t \cos u \\z(t,u) &= R24(t,u) \sin u\end{aligned}$$