

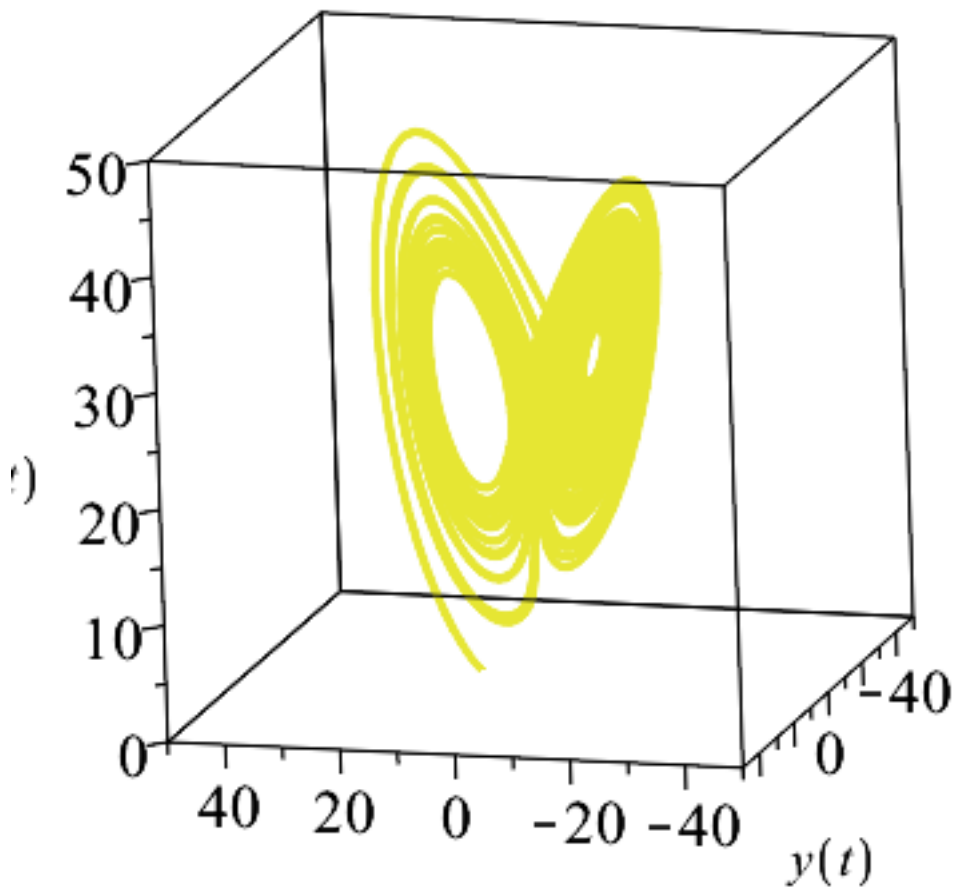
実習22.2

> with(DEtools) :

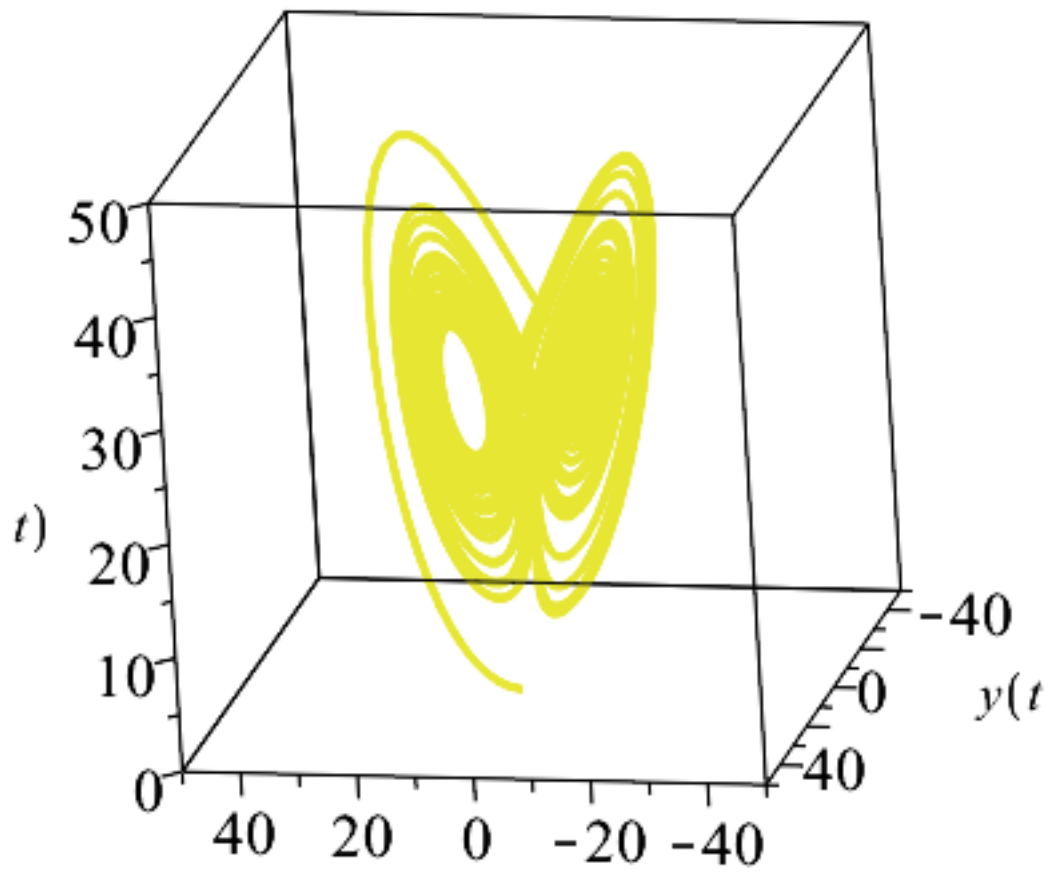
> de1 := [diff(x(t), t) = -10*(x(t) - y(t)), diff(y(t), t) = -x(t)*z(t) + 28*x(t) - y(t),
diff(z(t), t) = x(t)*y(t) - $\frac{8}{3}$ *z(t)]

de1 := [$\frac{d}{dt} x(t) = -10x(t) + 10y(t)$, $\frac{d}{dt} y(t) = -x(t)z(t) + 28x(t) - y(t)$, $\frac{d}{dt} z(t)$
= $x(t)y(t) - \frac{8z(t)}{3}$] (1)

> DEplot3d(de1, {x(t), y(t), z(t)}, t=0..50, [[x(0) = 10, y(0) = 1, z(0) = 1]], scene = [x(t), y(t), z(t)], x=-50..50, y=-50..50, z=0..50, stepsize = 0.01)



> DEplot3d(de1, {x(t), y(t), z(t)}, t=0..50, [[x(0) = 1, y(0) = 10, z(0) = 1]], scene = [x(t), y(t), z(t)], x=-50..50, y=-50..50, z=0..50, stepsize = 0.01)



> *DEplot3d*(*de1*, {*x(t)*, *y(t)*, *z(t)*}, *t* = 0 .. 50, [[*x*(0) = 1, *y*(0) = 1, *z*(0) = 10]], *scene* = [*x*(*t*), *y*(*t*), *z*(*t*)], *x* = -50 .. 50, *y* = -50 .. 50, *z* = 0 .. 50, *stepsize* = 0.01)

